

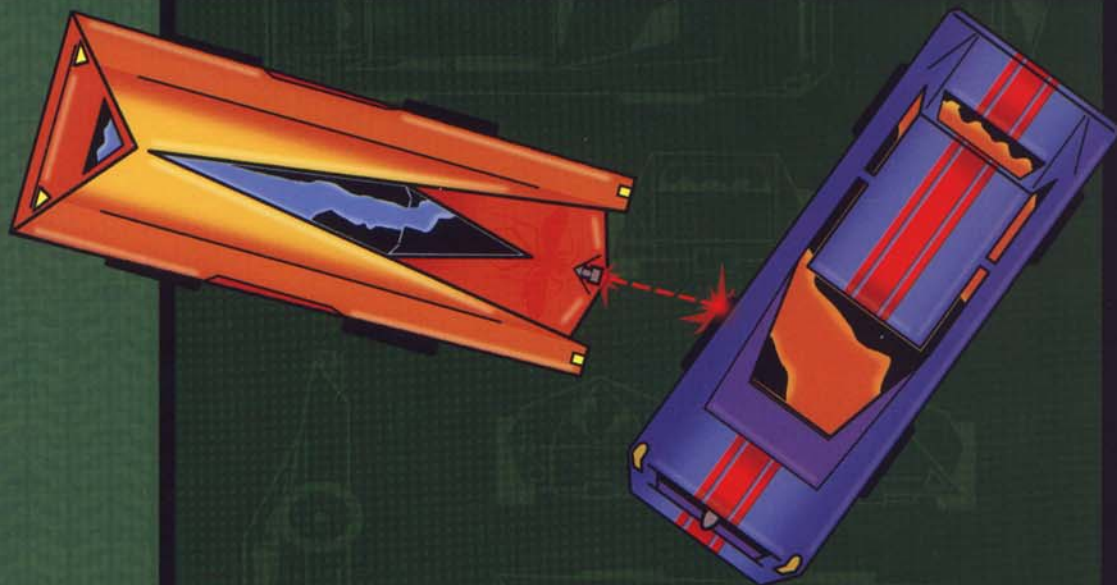
# CAR WARS®

DIVISION 5  SET 2

# STINGER

VS.

# FIRECRACKER



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**DRIVE OFFENSIVELY!**

FOR TWO PLAYERS, AGE 12 AND UP.

PLAYING TIME 1 HOUR OR LESS.

FOR BIGGER, LONGER GAMES,  
ADD MORE *CAR WARS* SETS.

STEVE JACKSON GAMES

The Pale



# CRASH CHART

Use this flowchart if you fail a Control Roll. Read until you come to an END, which indicates that your movement phase is over.

A vehicle which fails a Control Roll may not take any firing actions for the rest of the phase.

Hazards encountered during crash movement reduce Handling Status but *do not* trigger a Control Table roll or change the vehicle's position.

If you lost control due to a *maneuver*, including deceleration, skip down to **Failed Maneuvers**.

If it was a *hazard*, go to **Fishtails** and roll on the table there to determine the severity of the fishtail. Only the rear end of the car moves!

## Failed Maneuvers

(If you were doing a bootlegger, go to p. 5 and follow the instructions there.)

Roll one die, and add/subtract the Crash Modifier for your speed (last column of the Control Table). Add another 4 if you are on ice, or 2 if on oil.

3 or less - The rear end gets away. Go to **Fishtails**.

4-6 - Momentary traction loss. Go to **Skids**.

7 or more - Everything lets go! Go to **Spins**.

## Fishtails

A fishtail is like a Bend with NO forward movement.

*Lost control when attempting a Bend:* First, move straight forward for 3", or all your remaining movement, whichever is less.

Now roll a die for the severity of the fishtail:

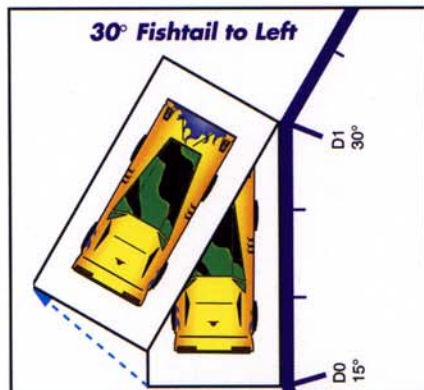
1 - 15°      2 - 30°      3 - 45°

4 - 60°      5 - 75°      6 - 90°

Now use the Turning Key as shown below. If the bend was to the left, line up the left side of the vehicle with the Turning Key, and vice versa. Only the rear end moves. If you have any movement left, continue the phase normally. END.

*Lost control when attempting a Drift:* Perform the Drift. Now roll a die and fishtail as above, but if you were drifting left, line up the *right* side of the vehicle with the Turning Key. If you have movement left, continue normally. END.

*Lost control from a Collision Hazard:* As above, but fishtail away from the collision. END.



*Lost control for any other reason:* As above, but roll a die to see if you fishtail to the left or right. END.

## Skids

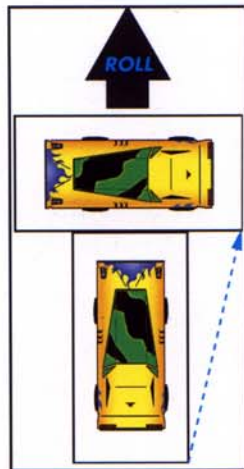
Roll a die and add the Crash Modifier for your speed. Skid forward that distance (or all movement left in the phase, whichever is less). If you have any movement left and were attempting a Bend or Drift, you may make that maneuver, or any *less difficult* one of the same type, without rolling again. After this optional "free" maneuver, continue your phase normally. END.

## Spins

Start by taking 1 point of damage to each tire.

The required movement for a Spin may exceed the amount you had remaining in the phase. Subtract any difference on your next phase.

*Lost control when attempting Bend or Drift:* Move forward 1 1/2" or your remaining distance, whichever is less. Now move your counter to "cross the T" (see illustration) pointing in the direction you were attempting to go. You have now done 90° of spin and used a total of 3" of your movement. Next, roll one die:



1 - A further 30° of spin (use **Fishtail** diagram).

2 - A further 45° of spin.

3 - A further 90° of spin.

4 - Car skids *sideways* another 1" (in the direction shown by the Roll arrow).

5 - Car skids *sideways* as above, but moves 2".

6 - Car begins to roll. Skip to **Rolls**.

Now reduce your speed by 30 mph, which cuts 3" from your remaining distance. Handling Status goes to -6. If you have any distance left in this phase, you must go straight forward. END.

*Lost control for any other reason:* As above, but roll a die to see if you spin to the left or right. END.

## Rolls

Move your remaining distance this phase *sideways*, as shown by the "Roll" arrow. Each *inch*, you roll: first to one side, then to the top, then the other side, then right-side-up, and so on. Every time a side hits the ground it takes 1d of collision damage (underbody armor remains undamaged till the wheels are gone). END, but note . . .

At the start of each later *phase*, the car loses 10 mph and continues its roll. Occupants may jump out at any time (p. 13). If it ends the roll right-side-up and still has a motor and wheels, it may be driven. A car with Low or Ultra-Low Profile will not stop on its side; if its last roll would take it onto its side, it won't make that roll.



AFTER THE GRAIN BLIGHT . . .  
AFTER THE MUTANT PLAGUE . . .  
AFTER THE CITIES TURNED INTO FORTRESSES . . .  
AFTER THE COUNTRYSIDE TURNED INTO A WAR ZONE . . .  
AFTER EVERYTHING FELL APART . . .

THE ROADS BELONGED TO NO ONE,  
AND THE RIGHT OF WAY WENT TO THE BIGGEST GUNS.

# CAR WARS

DIVISION 5  SET 2

# STINGER VS. FIRECRACKER

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OTHER CONTRIBUTORS: WHERE DO WE BEGIN? THIS EDITION IS THE PRODUCT OF LITERALLY THOUSANDS OF COMMENTS FROM TWO DECADES OF CAR WARS PLAYERS. BUT VERY SPECIAL THANKS GO TO JAY ADAM, CHRISTOPHER J. BURKE, ERIC FREEMAN, AND ROB DEIS, FOR DETAILED PLAYTEST, RULES READING, AND COMMENTARY; TO DAVID LADYMAN, SCOTT HARING, AND AARON ALLSTON FOR THEIR SEMINAL CONTRIBUTIONS IN THE EARLY DAYS; AND TO KEITH E. CARTER FOR THE TURNING KEY THAT FREED US FROM THE GRID!

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# STEVE JACKSON GAMES



# GETTING STARTED

The only thing better than a fast car is a fast car with a gun.

In *Car Wars*, professional autoduellists battle for glory in the arenas. Cycle gangs haunt the roads, Fortress Towns stand off all comers, and if you cut someone off on the highway, you could be in a duel to the death.

Welcome to *Car Wars*. Drive offensively.

This book is a complete starter set for *Car Wars*: the basic rules, counters and components, and two cars. There are nine Starter Sets, with two cars each. When you get them all (or even most of them), you'll have enough for a big game, giving every player his own rulebook and Turning Key. Further supplements won't repeat the basic rules, but will add new weapons, gadgets, scenarios, and special rules.

To play *Car Wars*, you need the rules (this book), counters (from this book or any expansion set), and:

- ✦ Table space: at least 2' x 4'. More is better!
- ✦ Masking tape or grease pencils to mark on the table, or a large sheet of paper to draw on.
- ✦ Several 6-sided dice.
- ✦ Pencil and paper to make notes.
- ✦ A yardstick or tape measure.

The game can be played solo, but is more fun with an opponent. It is probably best with 4 to 6 players, but two-player games can be very challenging. A game with over 8 players will take longer than one with fewer cars.

## TAKING THE BOOK APART

This book is designed to be taken apart! The inside front cover is the Crash Chart. The back cover has the Vehicle Sheets. You can laminate these to mark directly on them, if you like. (You also have permission to photocopy the covers for your own use, if you just hate taking your books apart.) The center sheet has the Turning Key (which includes the Control Table) and lots of counters.

## DICE

*Car Wars* uses 6-sided dice. You always want to roll low . . . except, of course, when you roll damage!

In these rules, "2d" means "2 dice." "2d-1" means "roll 2 dice and subtract 1 from the result." "3d+2" means "roll 3 dice and add 2." And so on.

Some rules refer to a 1/6 chance or a 50% chance. Roll these on one die. A 1/6 chance comes up only on a 1; a 50% chance comes up on a 1-3, and so on.

## BEGINNING THE GAME

Turn to p. 15 and pick a scenario. Then:

- (a) Create the game map with masking tape, or use markers and a large sheet of paper (see below).
- (b) Select your vehicle (p. 16) and equip your driver (p. 13). Take a Vehicle Sheet for your car and a counter to represent it.
- (c) Place all vehicles in starting position – and go!

## FAST PLAY

If time is short, here are some tips to speed play.

Don't keep track of ammo fired. Single-shot weapons, such as a Heavy Rocket, still have only one shot.

Instead of the regular collision rules (p. 5), pick up the counters and drop them from 6" over the table, repeating if they land atop some other counter. Adjust speeds after the collision as described on p. 5.

Determine the first move by rolling a die, and continue around the table, regardless of vehicle speed.

## CREATING A HIGHWAY

The more tables you can put end to end, the better. Use masking tape to mark lanes and shoulders. Each lane is 2" (10 feet) wide. Four- or six-lane roads are best, since they give plenty of room for maneuvers. Obstructions and potholes make a road interesting.

Define what happens if a car leaves the road – does it bounce off a mountainside, plunge over a cliff, crash through a fence . . . ? The referee may play opposing traffic which shoots impartially at all players.

When any car reaches the edge of the table, move all the cars back the same distance. If this puts a car on, or within its next move of, any obstruction of any kind, it may be ignored.

## DESIGNING AN ARENA

The edges of the table can represent the arena walls, which are considered solid. Mark the starting gates or other entry areas.

Most arenas contain walls or buildings to block lines of sight and force the drivers to maneuver; use masking tape or model buildings to show these.

Define the damage that internal walls can take (unless they are unbreakable) and the degree of hazard caused by various obstacles. The referee may add features to surprise the players, such as spikes or oil slicks.

For sample arenas, see p. 15 and *Car Wars* books to come . . . or visit [www.sjgames.com/carwars/](http://www.sjgames.com/carwars/).

## VEHICLE SELECTION

This rulebook includes specifications and rules for two vehicles (see p. 16) . . . plus at least one variant, and some options, for each one. More can be found in other *Car Wars* books; [www.sjgames.com/carwars/](http://www.sjgames.com/carwars/) shows what's currently available. Once you have some autoduelling experience, you may want the *Car Wars Vehicle Design Kit* to construct your own vehicles.

## PHASES OF A TURN

Set speeds (p. 3)

Movement Phases 1, 2, and 3 (p. 3)

Last-chance shots – use any remaining firing actions.

Check for fire and explosion (p. 10)

Reset handling status to current HC (p. 3)



# MOVEMENT

The scale is 1/60: 1" equals 5 feet. Each turn is one second. All speeds are figured in increments of 10 mph.

There are three movement phases during each turn. On each phase, a vehicle moves a number of inches equal to 1/10 of its speed. *Example:* A car going 100 mph moves 10" per phase, or 30" per turn.

## SETTING YOUR SPEED

At the beginning of each turn, the owner of each vehicle sets its speed. All players choose new speeds, write them on their record sheets (see Figure 1) and announce them simultaneously. Vehicles may accelerate, decelerate, or keep the same speed.

**Acceleration:** In one turn, a car may never increase speed by more than its maximum acceleration, shown on its Record Sheet. A vehicle's top speed is also on its record sheet. *This speed may never be exceeded.*

**Deceleration:** Any vehicle can decelerate with some risk. This is a D1 maneuver (see *Maneuvers*, p. 4) for every 10 mph lost.

For a deceleration of 50 mph, each tire also takes 1d of damage (see p. 9 for rules on damage). For a deceleration of 60 mph, each tire takes 2d of damage. Controlled deceleration of more than 60 mph in one turn is impossible.

As soon as deceleration is announced, the handling status is reduced immediately and a control check is made at the *original* speed. If control is lost, go to the Crash Chart (see below). The deceleration still occurs.

All this must happen before the vehicle can move or fire in Movement Phase 1.

## HANDLING CLASS

The better your vehicle's Handling Class, the better your chance of keeping control despite hazards and maneuvers.

A vehicle's original Handling Class is printed on its Record Sheet; this base HC cannot exceed 5. *The Driver skill of an experienced character may add up to 4 to Handling Class.*

Damage to wheels and tires can reduce HC; see p. 10 for details. In brief, a lost tire reduces HC by 2. If the whole wheel is lost, HC goes down by 3.

## HANDLING STATUS

Handling status is based on Handling Class, but it measures how controlled your vehicle is *at the moment*.

Each turn, a vehicle's handling status starts at that vehicle's Handling Class. Each maneuver or hazard, except the very simplest, reduces handling status.

**Hazards:** Each hazard, from road debris to enemy fire, has a Difficulty, from D1 up. Encountering that hazard reduces your handling status. For instance, hitting debris is a D1 hazard . . . it reduces your handling status by 1. If handling status drops to 0 or less, you must consult the Control Table to see if the hazard made you lose control.

**Maneuvers:** Each maneuver, described below, also has a Difficulty, from D0 (no danger unless you're already in

trouble) up to D7 (very dangerous). Road conditions (see the Turning Key) can add to difficulty. When you announce a maneuver, you must reduce your handling status by the Difficulty; if HS is now 0 or less, you must check the Control Table *before you move*. If you lose control, your maneuver will not go as planned!

Handling status cannot get worse than -6, but a vehicle at -6 must still roll on the Control Table for each new hazard or maneuver, even a D0 maneuver. The Difficulty of any maneuver attempted at HS -6 is subtracted from the Control Roll.

At the end of each turn, the handling status is reset to be equal to the vehicle's Handling Class.

## THE CONTROL TABLE

The Control Table is on the Turning Key. Cross-reference your current *speed* (the faster you are going, the more dangerous it is to maneuver) with your current *handling status*. If the result is "safe," you keep control automatically. If the result is a number, you must roll that number, or less, on 1d. If you fail, you lose control!

When you lose control, go to the Crash Chart and follow the "flowchart" to see what happens.

## MOVEMENT AND MANEUVERS

Each turn has three phases of movement.

In each phase, the fastest vehicle goes first. In case of ties, the player with higher Driver skill (see p. 14) goes first. If there's still a tie, roll dice. The low roller goes first.

Keep the same order until the next turn, even if the speeds change in mid-turn due to a crash.

### FIGURE 1: RECORDING SPEED AND HANDLING

| <u>TURN</u> | <u>SPEED</u>     | <u>HS</u> |
|-------------|------------------|-----------|
| 1           | 20               | +0 -1     |
| 2           | 30               | +0        |
| 3           | <del>40</del> 20 | + -2      |

*Handling status is reduced by each hazard and maneuver, and is reset to equal your Handling Class at the end of each turn. The Record Sheet has a space to mark current speed, and a track along the left side to show current Handling Status.*

*You may also keep track of speed and Handling Status on scratch paper (or a sticky note attached to the Record Sheet), as shown here.*

*You set your speed at the beginning of each turn. Normally, it stays the same throughout the turn, but a collision (as in Turn 3 in the example) can change it!*



## THE TURNING KEY

This is the most important tool in the game. It contains targeting and maneuver modifiers, and is all you need to execute everything from straight movement to the bootlegger reverse (see p. 5).

The outer edges of the Turning Key are marked in 1" increments with a heavier line at the 3" point.

## STRAIGHT-LINE MOVEMENT

This is easy – it can be measured with a yardstick or tape measure, or the inch marks on the Turning Key.

## MANEUVERS

Whenever a vehicle changes direction, this is a maneuver. Most maneuvers use the Turning Key.

In each phase, you may maneuver once for every 3 inches or less of movement:

10 to 30 mph: Only one maneuver per phase.

40 to 60 mph: Two maneuvers per phase.

70 to 90 mph: Three maneuvers per phase.

And so on.

Maneuvers at low speed are easy. As speed goes up, danger increases. Your handling status moves down for every maneuver except the simplest, and is reset only once each *turn*. A slow-moving vehicle will not move very far during a turn, and will therefore make few maneuvers. A speeding vehicle can attempt many maneuvers each turn, but the difficulty will quickly add up to severe danger.

Remember: If you attempt a maneuver that has a chance of failing, you must check the Control Table *before* you move your vehicle, because you may not wind up where you intended to go . . .

## MANEUVER EXAMPLE

A car is moving 60 mph. Its Handling Class is 2. (If you look at the Control Table as you read this example, it will help you understand the system.)

In each phase of movement, the car must move 6". First the driver attempts a "drift" (Difficulty 1). This uses 3" of movement. Subtract 1 from handling status, moving it to 1. A positive handling status is always safe. No roll is required.

The player then announces that he wants to do a "75° bend," a D4 maneuver. Subtracting 4 from handling status moves it down to -3. The Control Table shows that at 60 mph, -3 requires a roll of 5 or less to maintain control. So any roll except 6 is safe. The player rolls a 2, keeps control, and makes his planned bend, which includes 1" of movement (see Figure 2). After the bend, he moves another 2", which is all the movement he gets for this phase.

When his second phase comes around, he tries another drift . . . D1 again. His handling status is still at -3, because this is still part of the same *turn*. He subtracts 1 from handling status and rolls on the Control Table again . . . this time on the -4 column. Now a roll of 4 or less is needed to be safe. He rolls a 6 – he loses control! He does NOT get to perform his planned maneuver . . . he goes to the Crash Chart.

## Bend

The vehicle angles to one side – see Figure 2. Use the Turning Key; each corner has a different angle, from 15° to 90°. You may always angle your vehicle *less* than the amount called for.

A bend of 15° or less is trivial; the tighter the bend the more difficult it is. See the Turning Key for exact difficulties. But note that even a 15° bend, which is a D0 maneuver, still requires a Control Table check if your handling status is 0 or below.

The vehicle moves 1" in the new direction to complete the bend. Figure 2 shows a 45° bend. Note that the bend can be measured from either the front or the rear of the vehicle; the end used will affect the final position of the vehicle!

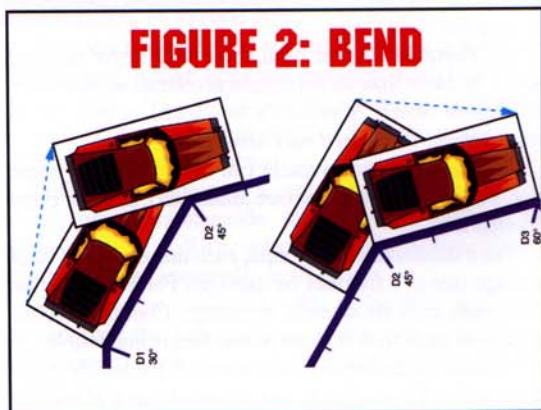


FIGURE 2: BEND

## Drift

The vehicle moves forward and 3/4" (or less) to either side, without changing direction. This is a D1 maneuver. A steep drift takes the vehicle 1 1/2" (or less) to one side. This is a D3 maneuver.

This maneuver uses 3" of forward movement. Vehicles moving less than 30 mph may not drift. Low-speed drivers can simulate a drift with several small bends.

Figure 3 shows both drifts.

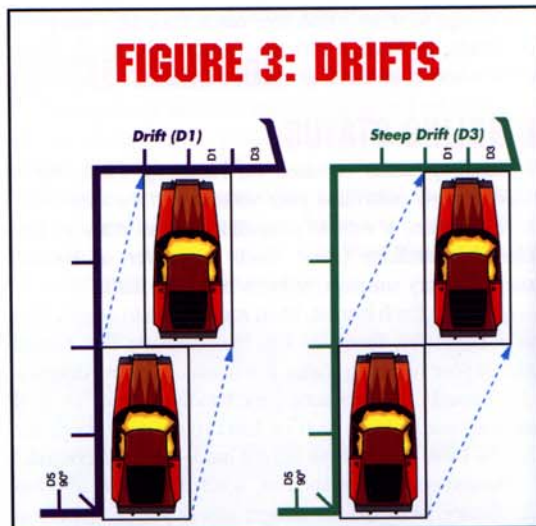


FIGURE 3: DRIFTS



## Bootlegger Reverse

This is the old moonshiner's trick of using a controlled skid to reverse direction. Police departments call it the "J-turn." It's dangerous . . . a D7 maneuver!

To attempt a bootlegger reverse, a vehicle must *start* the turn at between 20 and 40 mph. It can't slow to 40 and then try a reverse, all in one turn.

Figure 4 shows the bootlegger. If the Control Roll succeeds, the vehicle starts by skidding from A to B. This does 1 hit of damage to each tire. Unless a tire blows, the vehicle will automatically go to C on its next phase. That will finish its movement for that *turn*. It will stop (speed goes to 0), facing the way it came.

A vehicle that goes out of control and/or loses a tire will roll or skid sideways, in the direction shown by the heavy arrow on Figure 4. Go to the Crash Chart and start at the "Spins" heading. Ignore the note about tire damage; the vehicle has already taken that.

Once a vehicle begins a J-turn, it cannot fire aimed weapons until it stops (the occupants are too busy). Weapons on automatic (see p. 11) will still fire.

## MOVEMENT IN REVERSE

Any vehicle except a cycle may move in reverse at up to 20 mph. A vehicle may not go from forward to reverse (or vice versa) without stopping for one *full* turn. Acceleration rules are the same. Any maneuver can be made in reverse; the difficulty class is 1 higher.

## HAZARDS AND ROAD CONDITIONS

Hazards are outside events (enemy fire, for instance) that can affect vehicles. They are treated like maneuvers – each one has a difficulty rating, and if handling status is reduced to 0 or less, the Control Table must be consulted, even for a D0 hazard.

Road conditions (like oil, ice, or rain) are no danger in themselves but add to the difficulty of any hazard or maneuver. See the Turning Key for a list of common hazards and road conditions.

## CRASHES

If a vehicle misses its roll on the Control Table, it goes out of control. See the Crash Chart. Results may range from mild (a slight skid) to disastrous (vehicle rolls, takes damage, catches fire, and blows up).

## COLLISIONS

When a vehicle touches a fixed object or another vehicle, a collision has occurred. Determine this based on the edge of the counter.

Collision damage is based on the speed of the two objects (see below for calculating net speed of a collision). The damage done by collisions is equal to 1d per 10 mph of speed. *Example:* If a car strikes a wall at 50 mph, or if two cars collide at a combined speed of 50 mph, 5d of damage will be done to each.

The ramming vehicle rolls the dice for collision damage. Only one roll of the dice is necessary – both vehicles use the same result (but different modifiers).

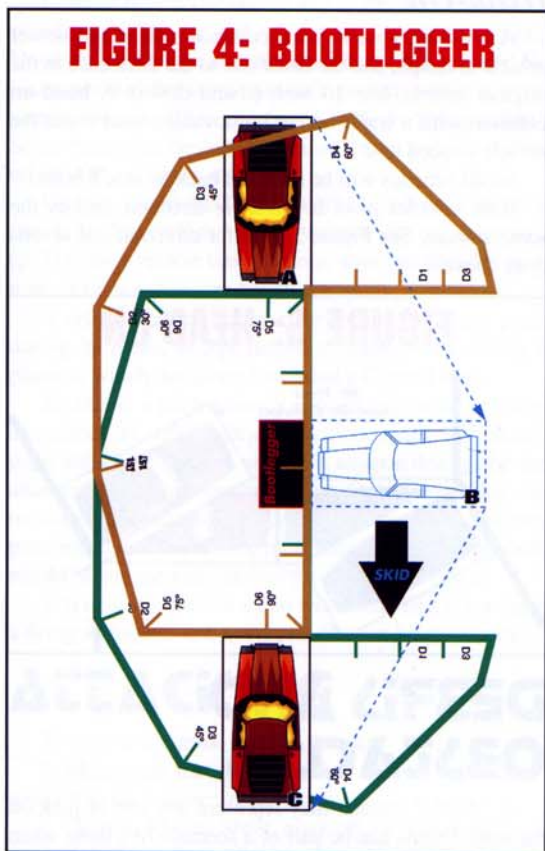
Note that collision damage is not treated like damage caused by weapons – see p. 9.

If a pedestrian is struck, he takes the full damage, but the vehicle takes only 1/5 damage (roll the dice, divide by 5, and round down). A cycle does full damage to a cycle or pedestrian, but only 1/3 damage to a car.

*Calculating net speed of a collision:* If the vehicles are going the same direction (or almost the same), subtract the lower speed from the higher one. If they hit head-on (or nearly head-on), add the two speeds. If they strike at right angles, use the speed of the vehicle which moved last.

*Ramplates:* Vehicles may mount hardened "ramplates" in front, to do extra collision damage. A light ramplate adds +1 to every die of collision damage it does; a heavy ramplate adds +2. A vehicle with a ramplate takes only half damage (round down) from a collision to its front. The ramplate is lost when all front armor is gone.

**FIGURE 4: BOOTLEGGER**



### Pivot

This maneuver can be made only at 0 mph, and only at the end of the first movement phase. The vehicle keeps one corner of its counter fixed, while pivoting about that corner any amount, in any direction. No Control Roll is required!

Vehicles that cannot accelerate cannot pivot.



## MOVEMENT AFTER COLLISIONS

A collision may change a vehicle's speed in mid-turn or even mid-move. If (for instance) it took half its movement for the phase and then collided, it would finish the phase by moving half the distance for its new speed.

A vehicle which *stops* because of a collision can't move or maneuver until the next turn, because acceleration takes place at the start of the new turn.

## COLLISION EFFECTS

Collisions have other effects, depending on collision type. Use the closest situation from the four described below. Note that a vehicle's direction of movement will not always match the front of the vehicle; it is possible to fishtail sideways into another vehicle! Treat these collisions as sideswipes, with damage based on the moving vehicle's full speed.

Any collision with a building or wall should be considered head-on unless the vehicle's direction of movement (not necessarily its facing!) is at 30° or less; these collisions are sideswipes. Use the Turning Key to determine the angles.

Hitting a **pedestrian** is a D3 hazard (squish!); it does not affect speed. The hazard for other collisions is based on the damage done, as for enemy fire; see p. 10. This hazard is applied to both vehicles, and is taken at the end of the collision, after all other effects have taken place.

If one vehicle overlaps another after a collision effect, move each the smallest distance needed to eliminate the overlap.

### Sideswipe

A **sideswipe** (the side of a vehicle scrapes a building or another vehicle's side at an angle of less than 30°) has no special effect on either speed or facing. Both vehicles involved take only one hit per 10 mph.

### Rear-End

After a **rear-end** collision (both vehicles are moving in the same direction and the front of one collides with the back of the other), their speeds are added and divided by 2, rounding down. *Example:* Car A (90 mph) rear-ends Car B (40 mph). Both cars are now moving at 60 mph. They end the phase in contact. If there are more phases left in the turn, Car B *must* move before Car A on the next phase.

A slower vehicle may not rear-end a faster vehicle. If this appears to occur, the faster vehicle is moved forward the smallest distance needed to remove the threat. This movement is subtracted from its next phase.

### T-Bone

A **T-bone** (the moving vehicle rams the side of the other at an angle greater than 30°) halves the moving vehicle's speed (round down). The speed of the other vehicle is unchanged.

A very small vehicle that is hit by a big one will be knocked back. Lay a ruler along the edge of the ramming vehicle's counter and push the small vehicle directly back in that direction as follows:

A *luxury* car will knock a trike or subcompact back 2", or a compact back 1", and will recover 20 mph of whatever speed it lost in the ram.

A *mid-size* car will knock a trike or sub back 1", and recover 10 mph of the speed it lost in the ram.

There is no knockback for other collisions.

If a vehicle was knocked back, each of its tires takes a point of damage.

The *rammed* vehicle now pivots (p. 5) away from the collision, turning on one corner of the struck side. It pivots on the rear corner if it was struck in front, and vice versa. Roll randomly if it's exactly in the middle. The amount of the pivot is determined by a die roll:

|         |         |         |
|---------|---------|---------|
| 1 - 15° | 2 - 30° | 3 - 45° |
| 4 - 60° | 5 - 75° | 6 - 90° |

The *ramming* vehicle now pivots on the same corner; if the rammed car pivots on the front right corner, the ramming car pivots on the same. Roll randomly for its direction, and roll as above for the amount of pivot. After the pivot, continue its move if it has movement left at its new speed.

### Head-On

A **head-on** (nose to nose) collision reduces the slower vehicle to 0 mph, and the faster one to the difference in the original speeds, less 10 mph (round down). A **head-on collision with a wall** or other immovable object resets the vehicle's speed to 0.

Small vehicles will be knocked back as in a T-bone.

Both vehicles pivot in the *same* direction, and by the *same* amount. See Figure 5. Roll for direction and severity as above.



## DEBRIS AND OBSTACLES

A "debris" counter may represent any sort of junk on the road. Debris can be part of a scenario (it's there when the game starts) or it can appear due to combat.

Debris counters are 3/4" square. Obstacles are the same size, but show a single, large chunk of vehicle. Debris and obstacles (below) remain until the game ends.

### PRODUCING DEBRIS

When a vehicle takes 10 or more hits from one attack, place a debris counter next to the vehicle . . . in the middle of the side hit, or right behind the vehicle for a hit to the



top or underbody. (A vehicle is not affected by its own debris when it is produced, but may be affected later if it returns to that spot.)

If a vehicle *explodes* (see p. 11), drop a dozen debris counters onto the table from 12" over the vehicle. If one misses the table, or lands atop any other counter, drop it again. If a debris counter lands in contact with a vehicle, the vehicle does not take the hazard until it moves.

## HITTING DEBRIS

A vehicle hits debris the first time any part of the vehicle touches a debris *counter*. Debris can be hit only once per phase, regardless of how many counters are hit. Once a vehicle makes contact with debris, it cannot be affected again by that counter until contact is broken.

Debris is a D1 hazard. It also does 1d-3 damage to each tire, rolled separately. Thus, on a roll of 1 to 3, that tire is undamaged.

## OBSTACLES

An "obstacle" counter represents a pothole, loose wheel, or other larger road hazard. An obstacle is struck as described for debris. An obstacle does the same damage to each tire as debris does, and is also a D3 hazard. A vehicle may hit more than one obstacle in a phase, and may be damaged by each.

If a vehicle loses a wheel (see p. 10) or takes 20 or more hits from one attack, an obstacle is placed as described above for debris. In some scenarios, debris or obstacles may be thrown from buildings or vehicles!

# COMBAT

Combat may occur during any of the three movement phases, or after the end of the last movement phase. However, no weapon may fire more than once per *turn*. No *character* may fire more than once per turn, either. A character's chance to fire is referred to as a "firing action." Some things can be done instead of firing, and this will be referred to as "using an action."

Usually, this means that each *vehicle* will only fire once per turn. Exceptions: (a) a weapon is on automatic (p. 11), (b) a vehicle has a gunner, who can also fire each turn, or (c) weapons are linked (see p. 8).

A vehicle (or pedestrian) may declare fire at any point during its move, except during a maneuver or during a phase in which the driver has failed a Control Roll.

To attack, a player simply announces that he is firing, and names the weapon being fired and its target. If the target is still eligible to fire, and has a weapon that can hit the attacker, he may declare return fire. Only the attacker can be targeted. Return fire is considered simultaneous; compute both the attack and the return fire, and then apply both results simultaneously, before the next phase begins.

You may also answer a ram with return fire, if you have a firing action left and a weapon that can hit the rammer.

Dropped weapons, smoke, oil, and so on are discussed on pp. 8-9.

## LINE OF FIRE

To hit a given target, there must be a "line of fire" (LOF) from the middle of the side where the weapon is (or the center of the turret, for turret weapons) to some part of the counter of the target. Buildings, vehicles, pedestrians, etc., block LOF; debris and obstacles do not. Smoke and paint reduce chances of hitting, but do not block LOF, except for lasers (see p. 8).

The LOF must be traced within the arc of fire for that weapon position (Figure 6). Pedestrians, turret weapons, and cyclists' hand weapons have a 360° arc of fire. Hand weapons from a car, truck, or sidecar have a right or left arc of fire, depending on the side they're fired from.

## CAR TARGETING

A car (which includes all vehicles with more than two wheels) has six sides: front, back, right, left, top, and underbody. When you fire at a car, you may only hit a side that is facing you. Usually you will be able to choose between two sides, such as the front or the right. You must choose one target. If you score a hit, any damage you do will be taken by that part of the vehicle (see *Damage Location*, p. 9).

## ATTACKING

To resolve a normal weapon attack:

1. Make sure that there is a line of fire from the weapon to the *counter* of the target.
2. On your Record Sheet, mark off the ammo used.
3. Roll 2 dice to see if the weapon hits (see p. 8).
4. If the weapon hits, determine damage location and amount (see p. 9). Each Record Sheet shows the amount of damage done by each weapon the vehicle carries.
5. If an *incendiary* weapon hits, check for fire (p. 10).
6. If any damage was done, move the target's handling status down and make a Control Roll if required (see p. 10). Place debris/obstacle counters if required.

### FIGURE 6: ARCS OF FIRE





A car's *wheels* may be targeted. Each wheel is a separate target; only visible wheels may be targeted. If you can trace a LOF to the quarter of the counter containing the wheel you want to hit, it's "visible." A wheel is a difficult target; subtract 3 from the "to hit" roll when shooting at wheels. See p. 10 for damage to wheels.

A car's top armor may not normally be targeted unless something is fired (or dropped) from above, or unless it has a turret. Turrets may be targeted from any direction at a -2 to hit. All "top" armor protects weapons in the turret.

The underbody may not normally be targeted by any weapons except mines.

If a car is lying on its side, however, all normal weapons can target the top and underbody.

## CYCLE TARGETING

Compared to a car, a cycle is a small target, but every part is exposed. Tires can still be targeted with the usual penalties. Normally, a cycle's underbody can only be targeted by mines.

Only one component of a cycle can be hit in each attack – the rest of the damage passes through the cycle and has no effect. See p. 9 to determine hit location.

**Sidecar targeting:** If the cycle being attacked has a sidecar, roll 1d to see if the sidecar was hit. On a 1-4, the cycle was hit – see p. 9. On a 5 or 6, the sidecar was hit. Treat a sidecar as a tiny automobile, with armor in front, back, underbody, and both sides.

## ROLLING TO HIT

When a normal weapon (anything but a dropped weapon) is fired, the attacking player rolls 2d to see whether he hit his target. He must roll the to-hit number *or less* for that weapon – see the weapon list on the Record Sheet. Thus, to hit with a machine gun, a player would need to roll 8 or less on 2d.

Accuracy is affected by several factors (shown on the Turning Key), including range, target size, visibility, and bonuses for the attacker's skill and equipment. These modify the "target number" – the roll actually required to hit. *Example:* A compact car is a small target, giving a -1 penalty, so a player attacking a compact car with a machine gun must roll 7 or less to hit, instead of the normal 8 (8 minus 1 is 7).

*No hit is automatic. A roll of 12 always misses!*

It is left up to "house rules" whether players may measure the range to a target before declaring an attack, or must declare first and then measure.

## LINKS

A "link" is a button that will fire two or more specified weapons together. (They can still be fired individually as well, if you wish.)

If identical weapons are linked and on the same side of the vehicle, the attacker may make a single roll to hit for all those identical linked weapons!

Weapons that are not identical, or not on the same side, can be linked . . . but only one, chosen by the firer, can be aimed. The other(s) are unaimed (see p. 11) – they fire straight out at the moment they are triggered.

## DROPPED WEAPONS

Oil jets, minedroppers, and tire-spikers are "dropped weapons." The oil jet creates an oil slick. The minedropper lays one of two types of mine; the type is chosen before play begins. The tire-spiker drops a dozen caltrops.

When mines, oil, or spikes are dropped, the appropriate counter is placed behind the dropping vehicle (see Figure 7). The counter may be placed at any point, as long as it is touching the rear edge of the vehicle counter and is *behind* the vehicle. Dropped explosives are removed when they explode; other counters last indefinitely. The dropping vehicle does not hit its own weapons when it drops them . . . unless, of course, it's going backward.

If the vehicle counter touches a mine or spike counter, roll damage separately for each wheel. Mines, and explosive spikes, are removed when they detonate.

**Spikes:** Roll 1d-2 damage for each tire (solid tires are immune). The spike counter is *not* removed.

**Explosive spikes:** Use the red side of the spike counter. Roll 1d damage for each tire, including solids.

**Shaped-charge mines:** Use the red side of the mine counter. Roll 2d damage to the vehicle's underbody.

**Fragmentation mines:** Use the yellow side of the mine counter. Roll 1d damage for each tire, *and* for each pedestrian within 3".

## Oil

An oil jet makes an oil slick (black/rainbow counter) each time it is fired. A vehicle touching an oil *counter* (not just the picture) is at +2 difficulty for any maneuver or hazard, and – if it fails its Control Table roll – is also at +2 on the basic Failed Maneuver roll, making it likelier to skid or even roll. However, if a vehicle tracks a straight course through oil, with no maneuvers, it is unaffected.

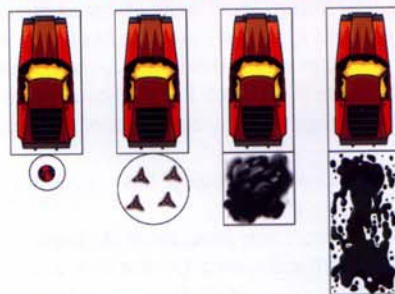
Some cars can drop *flaming* oil, which has the same effect plus 1d-3 fire damage to each *wheel*.

## Paint and Smoke

Clouds of paint (colored) and smoke (black) may be fired by rear-mounted weapons. These clouds remain stationary. Smoke lasts one minute (longer than most games will take). A paint spray is removed at the end of the turn after the one in which it is fired.

Lasers cannot fire through smoke or paint (the counter, not just the picture). Any other weapon tracing LOF through paint or smoke has a -1 penalty to hit for each *counter* the LOF passes through.

**FIGURE 7: DROPPED WEAPONS**





## GUNNERS

A driver can fire all vehicle weapons, but some vehicles also have seats for one or more gunners. Gunners may fire any vehicle weapon . . . with a +1 to hit. Each vehicle weapon may still only fire once per turn.

A gunner in the front seat can take control if the driver is incapacitated or killed (see p. 10).

Any vehicle which contacts a paint-spray counter gets paint on the windows. That vehicle will be at -2 to hit for the rest of that turn and the next three turns; after that, the windshield washers will have cleaned it off.

## DAMAGE

When a weapon hits, calculate the damage by rolling the number of dice shown on the Record Sheet. For instance, if a rocket launcher (a 2-die weapon) hits, roll 2d. The result is the number of hits taken by the target.

### RECORDING DAMAGE

Armor is lost a point at a time; if you start with 12 points of armor on the front of your car, and it takes 7 hits, you have 5 points left.

Each vehicle component can take a certain amount of damage, or "DP" (damage points). These are shown as boxes within the icons on the Record Sheet. Components work at full efficiency until they take their last point of damage . . . then they're gone. A machine gun (3 DP) can take 2 hits and still work . . . but the hits are marked on the Record Sheet. When it takes a third hit, it is destroyed.

### CAR DAMAGE LOCATION

Damage depends on the side of the vehicle that was hit. Damage is taken by the components on that side, outermost first. Armor is destroyed first. When all armor is gone, the next component inward is hit . . . and so on.

If components are side by side, they will appear in parentheses in the list below; roll randomly to see which one is hit. An attack from the right, if it hits the gunner and goes through him, will get the driver next; the reverse is true for an attack from the left.

Components in each area of a car or truck, in the order they are hit by an attack from that side, are:

**FRONT:** Front armor; (front-firing weapons); front motor; (driver or gunner); (cargo or back-seat crew); back motor; (back-firing weapons); back armor.

**BACK:** As above, but in reverse: back armor first, etc.

**RIGHT:** Right armor; (right-firing weapons); ([gunner and then driver], cargo, or motor); (left-firing weapons); left armor.

**LEFT:** As above, but in reverse: left armor first, etc.

**UNDERBODY:** Underbody armor; (driver, gunner, cargo, or motor); (turret/top weapons); top armor.

**TOP:** As above, but in reverse order.

**TURRET:** Top armor, then turret weapons. If the turret is targeted, "leftover" damage will pass above the car rather than hitting the body.

**WHEELS:** Target wheel only. The tire is hit first, then the hub. "Leftover" hits have no effect.

Many components are not present on all cars. If a component was never present, roll again if there are alternatives. If there are none, or if it was present but has been destroyed, proceed to the next component inward!

No car will have both front and rear power plants (motor); many will have no gunner, turret, and/or cargo. Passengers count as cargo. In case of a dispute, the referee's decision is final.

Some weapons cannot be hit by certain attacks. There is no way, for example, to damage a front-firing weapon by an attack from the right – though you can shoot through the car and hit it from behind.

Where two or three components are listed in parentheses, only one will be hit by each attack. Roll randomly for each separate attack to see which one is hit. *Example:* A mine that penetrated underbody armor would affect the power plant, cargo, gunner, or driver – but only one. If that one took enough hits to destroy it, further damage from that mine would go directly to the turret weapon or, if there was no turret, the top armor. A later mine might get a previously unhit target, or hit in the same place, bypassing the other internal targets, and hit the turret or top again.

Similarly, if a vehicle takes "front weapon" damage and has two or more front weapons, roll randomly for each attack to see which of the weapons is hit. If there are two or more front weapons, each attack will hit only one. Leftover damage from that attack goes "inward," not "sideways" to other front weapons.

### CYCLE DAMAGE LOCATION

After hitting a cycle, roll to see *where* you hit it.

**On front or rear:** Roll 1d. On 1-5, you hit armor (if armor is all gone, go to the next paragraph). On a 6, you hit the exposed wheel.

**On either side:** Roll 1d. On 1-2, you hit the driver. 3, the motor. 4-5, a random weapon (roll again if there are none). 6, a wheel – roll randomly to see which one.

**Sidecar damage:** A sidecar has one wheel, one or two weapons, and possibly a rider. Once the armor on one side is lost, any fire hitting the exposed area has an equal chance of hitting each of the interior components.

### COLLISION DAMAGE

Damage from a *collision* is divided evenly among all exposed (i.e., "outside") components on the affected side. For instance, if a car with two front weapons had no front

## VEHICLE DESIGN AND ICONS

*Car Wars* uses a detailed vehicle design system which is *not* included here. This Starter Set is about combat; the *Vehicle Design Kit* will come later. You *may* redesign existing vehicles by changing the way the weapons point, and by moving armor from one side to another.

For a guide to the icons used on the Record Sheets, and some stats that will help you switch out different components while keeping the basic designs legal, see [www.sjgames.com/carwars/](http://www.sjgames.com/carwars/). This will also explain some of the terms in the vehicle descriptions, like suspension, superconductors, and so on, which are not defined in this set.



armor and took 3 points of damage from enemy fire, you would roll randomly to see which weapon took the 3 hits. However, if that car took 3 points of collision damage, the owner would divide it evenly between the exposed systems (the weapons) – 2 hits on one and 1 on the other. Thus, collision damage cannot reach the interior of a vehicle unless all armor on that side and all components “outside” the one to be affected have been destroyed.

## ENGINE DAMAGE

Until the power plant is completely destroyed, the vehicle’s performance is unaffected. When the power plant takes its last hit, the vehicle cannot accelerate or pivot, and must decelerate as if it were uncontrolled (see *Uncontrolled Vehicles*, below). The driver may still maneuver, fire weapons, and manually decelerate.

A damaged power plant may catch fire. See below.

## WHEEL DAMAGE

Wheels have two components: the tire and the hub. *Tires* can be affected by damage of all kinds, and even by deceleration and skidding, and take full damage from pedestrian weapons (see p. 13). Their DP depends on the tire type. *Hubs* are considered armor, and are unaffected by spikes and skidding, but only have 2 DP.

Damage to a wheel always goes to the tire first and then (if it is a type that can affect the hub) to the hub. Any excess damage is lost; the damage cannot be transferred to any other component of the vehicle.

When a tire loses its last DP, it blows out. A vehicle with one or more blown tires has its HC reduced by 2. Handling status goes to -6, but a blown tire is never a *separate* hazard. Just assess the normal hazard for the amount of damage done to blow the tire. Top speed drops 10 mph for every blown tire, to a maximum -40. *Example:* A car’s original top speed is 90 mph; after losing a tire, it is 80.

When the *hub* is destroyed, the wheel is completely gone. HC drops by another 1 (for a total HC reduction of 3) and handling status goes to -6. If the damage was done by enemy fire, that will be a hazard as well.

Cars which have lost all tires on two corners may still maneuver, but will do 1d-3 damage to the tireless hubs with each maneuver. A car which has lost two hubs cannot maneuver or accelerate, and loses 20 mph per *phase* as it slides on its underbody.

If a vehicle with paired wheels (e.g., a 6-wheeler) loses one wheel or tire of a pair, the only penalty is a -1 to HC. All normal penalties apply if the other one is lost.

**For trikes and cycles**, loss of a wheel or tire sends the vehicle directly to the Crash Chart, starting at “Failed Maneuvers.” The damaged trike or cycle cannot maneuver or accelerate, and must decelerate 20 mph per phase.

## INJURY TO CREW

Mark hits to the driver in the “steering wheel” icon of the Record Sheet. Gunners are shown by “target” icons.

An unarmored human has 3 DP. The first hit is just a scratch, the second hit is a wound, and the third hit knocks

## TAKING DAMAGE IS A HAZARD

Taking any amount of damage – from enemy fire, mines, or collision – is a hazard and requires an immediate Control Table check. Divide the damage by 10 and round down. 1-9 points is D0, 11-19 is D1, and so on. (If multiple weapons are fired at the same moment, their damage is combined into one hazard.)

him unconscious for the rest of the game. (A fourth hit will *really kill* a character; X out the icon.)

Crew and pedestrians may also wear armor. Regular body armor takes 3 damage points before it is destroyed.

Hits taken by body armor are no hazard, but a hit to the driver is a D2 hazard. Two hits at once are D4. Three hits at once knocks the driver unconscious and the vehicle is uncontrolled.

## UNCONTROLLED VEHICLES

If a two-wheeler’s driver is killed or knocked unconscious, the cycle goes to the Crash Chart as though it had lost a wheel. Any passengers must jump or suffer the consequences (see p. 13). Any other vehicle (including a cycle with sidecar) continues in a straight line if the driver is incapacitated. It decelerates 10 mph each turn. Its handling status is -6, and hazards still require a Control Table roll.

## Substitute Drivers

If a cycle’s driver is incapacitated, a sidecar passenger can either steer or fire a weapon, but not both on the same turn. He cannot use the brakes or accelerator.

If a car’s driver is incapacitated, a front-seat gunner or passenger may try to take control. (*Note:* No vehicle may have more than two seats in front.) He may operate all vehicle controls except the weapons. Each maneuver he makes has an extra D2 of difficulty.

If a driverless vehicle can be stopped, it takes 5 turns (5 seconds) to push the original driver out or off and replace him with a gunner or passenger. On the 6th turn, the new driver may start to accelerate and/or fire.

## ODDS AND ENDS

### FIRE AND EXPLOSION

A vehicle may catch fire in combat, or by taking crash damage to flammable components. Any time a fire roll succeeds or the rules say a vehicle “catches fire,” place a *fire marker* on it. A vehicle may have no more than three fire markers.



**Incendiary attacks (laser, napalm, flamethrower, incendiary ammo, etc.):** Roll immediately after each attack. Take the amount of damage done (*double* the number for a flamethrower attack). Now roll this target number or less on 3d. A success means the vehicle is on fire. Any target of more than 15 is treated as 15, so a fire is never automatic. Check separately for each incendiary attack, even if they occurred in the same phase – but linked weapons of the same type are combined into one attack.



**Attacks on flammable targets:** These include power plant, gas tanks (which you will not find in any Starter Set vehicles) and flamethrower. If any of these is hit by any enemy weapon, take the number of hits of damage and roll as above. A success means the target is on fire. (Most vehicles are electric and don't have gas tanks, but some gas-powered vehicles do exist.)

**Crash damage to flammable targets:** If a roll or collision damages a flammable target, there is a 1/6 chance that the vehicle catches fire. Roll only once per phase per flammable item.

**Incendiary attacks on flammable targets:** If an incendiary attack does any damage to a flammable target, the vehicle is automatically on fire.

**Contact with a burning object:** At the end of each full turn a vehicle spends in contact with a burning wreck or building, there is a 1/6 chance that it will also catch fire; roll this just before you roll to extinguish fires (below). A vehicle with a built-in fire extinguisher won't be ignited by contact with burning objects.

## Extinguishing Fires

At the end of each turn, roll 1d for each vehicle on fire to see if the fire goes out. Modify the roll as follows:

- ✦ **Speed:** -1 for 60-70 mph, -2 for 80-90 mph, -3 for 100 mph or faster.
- ✦ **Fire extinguishers:** -1 for each occupant of the vehicle who takes his firing action to use a hand-held fire extinguisher. -3 if the vehicle has a built-in fire extinguisher.
- ✦ **Armor:** -1 if the armor is fire-resistant. -2 if it is fireproof.
- ✦ **Maneuvers:** -1 for every D3 or harder maneuver during the turn at 30 mph or greater.

Results of the modified roll are as follows:

- ✦ **0 or less:** Fire goes out! Remove all markers.
- ✦ **1:** Remove one fire marker.
- ✦ **2-5:** No result; the fire continues to burn.
- ✦ **6:** Add one fire marker! If the vehicle already has 3 markers, apply 1 hit to each internal component. (This is known as the Oven Rule.)

The referee may also allow fires to be put out by driving into water or some other exercise of ingenuity.

## Fire Results

After the fire roll, if there are any fire markers still on the vehicle, assess damage as follows:

- ✦ **Armor:** 1 hit to each side's armor for each fire marker – but the underbody is not affected unless it was actually hit by a flame attack on the previous turn.
- ✦ **Wheels:** Are not affected unless the vehicle is sitting still. In that case, they take 1 hit per fire marker. Wheel hubs are not affected.
- ✦ **Internal components and occupants:** If any side was breached before this turn's fire damage, each internal component and occupant takes 1 hit per fire marker. Otherwise, no damage.

## Explosion

A burning vehicle may explode if it contains a flamethrower, rocket launcher, micro-missile launcher, or anti-tank gun with unfired ammo, or a heavy rocket. Each turn that one of these items takes fire damage, there is a 1/6 chance that it explodes, scattering debris (p. 6). All occupants, components, and armor sides take 2d damage. Pedestrians or vehicles within 2" take 1d of damage to the exposed side (if two sides are exposed, the owner chooses). The vehicle is now uncontrolled; see p. 10.

## Burning Wrecks and Objects

If all a vehicle's components are completely destroyed by fire or explosion, it is a "burning wreck." It is now fully on fire (3 fire markers). It burns until it is gutted, which takes several minutes of game time.

## AUTOMATIC FIRE

If a weapon is on "automatic," it will fire each turn until it runs out of ammo or is taken off automatic. Putting a weapon on automatic is a firing action, as is taking it off automatic. Letting it fire during the intervening turns is not a firing action. If you have a weapon on automatic, you may fire another weapon that turn.

A weapon on automatic is not being aimed by the driver. Therefore, it fires straight ahead (or behind, or to the side). It may not target the turret or tires of another vehicle, or be "aimed" in any way. It does not get a computer aiming bonus. Putting a weapon on automatic breaks any sustained fire (see p. 12).

When a weapon is on automatic fire, calculate its attack at the end of all movement for that turn.

When placing a turreted weapon on automatic, the firer must declare which way (front, right, left, or back) it is facing, and note it on his Record Sheet. Changing this direction on a later turn will require a firing action.

## Dropped Weapons on Automatic

*Smoke, Paint, or Oil:* Place a continuous line of counters behind the vehicle – that is, as soon as you are far enough away from a counter to place another, do so. A vehicle may place a counter to fill the empty space at any moment it actually matters during its move. This lets vehicles lay solid smokescreens, paint clouds, and oil slicks. Warning – this empties your magazine very quickly! (If a vehicle is spinning, it may be impossible to keep the smokescreen solid. That's realistic.)

*Mines, spikes, or other solid items:* A dropper on automatic will toss out one counter for every full 3" the vehicle moves. When the vehicle's rear is 3" from the edge of the last counter it dropped, it's time to place another one. Again, this empties the magazine quickly!

## WRECK COUNTERS

Each vehicle counter has a wrecked version on the back. Flip the counter when it has been rendered undrivable through loss of wheels, it is uncontrolled from driver injury, all its weapons have been destroyed, or the vehicle has been abandoned.



## SUSTAINED FIRE

A vehicle may lay down "sustained" fire from a weapon – firing at the same target for several turns in a row. This gives a "tracer" effect which improves aim as follows: On the second turn, add 1 to the "to hit" roll. On the third turn, add 2. On later turns, add 3.

If line of fire is lost for any reason (e.g., the target leaves the attacker's firing arc, or something blocks LOF for at least one full phase), sustained fire is broken. In that case, the attacker must start over to regain the bonus. Weapons on automatic do not get a sustained-fire bonus.

You can move sustained fire from a smaller target to a larger one, but not otherwise. So if you were shooting specifically at one tire, you can change your point of aim to the whole car without breaking the sustained fire. But you cannot change your aim to some other part of the car, such as switching from a tire to a turret. Nor can you continue your sustained fire if you start by shooting at the whole car and then change your aim to a tire.

## CONFETTI

A vehicle can take only so much damage at one time, regardless of its armor. On each Record Sheet is a "Confetti Number." If a vehicle takes this amount of damage in a single phase, either by collisions or a tremendous volley of gunfire (or both), the vehicle has shattered and is replaced by a dozen random debris and obstacle counters dropped from 12" above the table.

If a vehicle is turned to confetti by a ram, the rammer can take no more damage than the confetti number of its victim . . . or half that much, if it attacked with a ramplate.

## HAND WEAPONS

Anyone – driver, gunner, passenger, or pedestrian – may use a hand weapon (see table, p. 13) as his firing action. See *Arcs of Fire*, p. 7, when firing from a vehicle. Hand weapons do not get bonuses for computer aiming, but get all other "roll to hit" modifications listed.

Vehicle components are too heavily built for hand weapons to have much effect. Submachine guns and grenades do their full 1d of damage only on tires and humans. On other targets, they do half damage, rounded down. Pistols and rifles can damage tires, but no other part of a vehicle.

**Range:** A grenade may be thrown up to 15" (see below). Other hand weapons have a maximum range of 60" for game purposes. Regular range bonuses and penalties apply for all hand weapons.

**Targeting:** The driver of a moving vehicle must subtract 3 from his to-hit roll with any hand weapon. Gunners or passengers in a moving vehicle subtract 1. Pedestrians and occupants of stationary vehicles fire at the listed values. In certain scenarios, pedestrians may fire from stable positions which give them a +1 bonus to hit.

**Thrown Grenades:** If a grenade is thrown, the thrower must make his to-hit roll. If he misses, he is assumed to miss by so much that the grenade has no effect (a referee may modify this as he sees fit!).

If he hits, the grenade is placed next to the target, and will go off 1 to 5 turns later; the delay is set by the thrower, who may either write a secret note or tell the referee. It goes off at the end of the designated turn, after all vehicle movement. If any corner of a car's counter (or the front or back of a cycle) is within 3" of the target point, the tire(s) there take 1d of damage. Pedestrians within 3" also take 1d of damage. Anything else exposed within 3" takes half damage, rounded down.

**Dropped Grenades:** A character may simply drop a grenade counter adjacent to himself or his vehicle. No to-hit roll is necessary. The grenade goes off after the set time, as above.

**Weight and Space of Hand Weapons:** For most scenarios, there is no reason to worry about the space that a crewman's hand weapons take up in a car or the weight they add. If driving a custom design where every pound counted, of course, it would be abusive to carry a full 200-lb. load of grenades and pretend they were weightless.

# THE REFEREE

In a two- or three-player game, there is really no need for a ref . . . but in larger scenarios, you will want one.

The referee has three primary functions:

- (1) He serves as the final arbiter of the rules.
- (2) He may check players' records, and has the final say on what bonuses the characters are entitled to.
- (3) At the end of each turn, if any vehicles are on fire, he rolls to see whether they explode or stop burning. He moves vehicles that are uncontrolled.

In an arena scenario, he may also serve as master of the arena. He can draw the map, determine the scenario rules, and set the prizes for each competition. He operates any arena features, such as sniper towers or moving walls.

For road battles, the ref controls any travelers not involved in the duel, and sets weather and road conditions.

Refereeing can be as much fun as playing. A big scenario is faster-moving and more fun with a good referee to provide a background for the duel. The card table in the rec room is more interesting if everyone refers to it as "the Waco Double Drum" or "the most dangerous stretch of Interstate 10 west of the Mississippi."

A referee can also provide sportscaster commentary and crowd reactions, and fill in "dead air" with commercials from various sponsors, such as "Uncle Albert's Auto Stop and Gunnery Shop," "Fnord Motors," and "Omega Brand Munitions." A few minutes watching any televised professional sporting event will give you the feel for this kind of chatter.



# PEDESTRIANS

Not everyone has a car. Vehicles may face challenges from enemies on foot – or a driver may leave a wrecked car and sprint for safety, tossing a grenade as he goes . . . A pedestrian counter is 3/4" square. Line of fire must be traced to the pedestrian counter.

## MOVEMENT

Normal pedestrians move 10 mph (1" per phase). Weight carried (below) can reduce this. Pedestrians move before vehicles, and never *have* to move.

## ENTERING AND LEAVING VEHICLES

A pedestrian may enter an unoccupied vehicle to drive it; a driver may leave a vehicle to fight on foot.

To enter a car, a pedestrian must stand beside it for one full turn (opening the door). On the next turn, he may enter. If the car is not running, it will take 3 additional turns to start it. Thus, it may begin to move on the fourth turn . . . but it may fire on the turn the pedestrian enters it.

Anyone in a car may leave while it is standing still, or jump while it's moving. Roll for damage as though he had been hit by a car moving 10 mph slower than the car was going. He lands anywhere adjacent to the vehicle, and may move and/or fire beginning on the next phase.

**Cycles:** A pedestrian must stand beside a cycle for one full turn to get on. The next turn, he is astride it. He must remain motionless for 3 additional turns, to get the cycle running. He can then begin to move and fire normally. A driver leaving a cycle must stand beside it for a full turn after stopping, to dismount, and then may run normally. A driver or passenger may jump from a moving cycle, rolling for damage as described above.

It would take at least a minute to pick up and restart a fallen cycle. Most combats aren't that long.

## COMBAT

Pedestrians may use hand weapons only (see table below). A pedestrian may fire only once per turn.

If a vehicle collides with a pedestrian, the pedestrian takes full damage (see p. 6, *Collision Effects*). The vehicle takes only 1/5 damage.

When a pedestrian is killed, flip the counter to show the skull on the opposite side.

## EQUIPMENT AND ENCUMBRANCE

A pedestrian can carry up to 200 lbs. of equipment. Pedestrians can work together to carry heavier items (like tripod weapons) by dividing the weight among them.

The weight you carry counts against your vehicle's chassis limit, and affects your movement as a pedestrian. With light encumbrance, a pedestrian moves in every phase. More heavily loaded pedestrians are slower:

| Weight carried | Movement phases          |
|----------------|--------------------------|
| 0-40 lbs.      | Every phase              |
| 41-80 lbs.     | Phases 1 and 2           |
| 81-120 lbs.    | Phase 1 only             |
| 121-200 lbs.   | Phase 1, alternate turns |

In addition to weight, personal equipment is also classified as to how it's carried: no-handed (on a belt, clip, or otherwise attached to the wearer), one-handed (most weapons fall into this category), two-handed (large weapons and other bulky items), and backpack. A pedestrian can carry one two-handed item in his hands, or two one-handed weapons. Any number of no-handed items may be carried, except backpacks; only one may be worn at a time. A backpack is assumed to be able to hold a pedestrian's full 200-lb. load.

A pedestrian can wear up to six holsters (for pistols and other one-handed items) and two slings (for rifles and other two-handed weapons). A weapon in a holster takes 1 turn to ready, while a slung weapon takes 2 turns to ready. Holsters and slings weigh 1/4 pound apiece.

Backpacks cannot be worn while driving, unless you're driving a motorcycle. Each backpack takes 1/2 space when carried as cargo.

## HAND WEAPONS AND PERSONAL EQUIPMENT

| Item                   | Hands        | Dmg.    | To-Hit | Cost  | Shots | Ammo \$                      | Loaded \$ | Loaded Wt. |
|------------------------|--------------|---------|--------|-------|-------|------------------------------|-----------|------------|
| Light Pistol (LP)      | 1            | 1 hit*  | 7      | \$75  | 8     | \$ 1                         | \$83      | 1 lb.      |
| Heavy Pistol (HP)      | 1            | 2 hits* | 8      | \$100 | 8     | \$ 1                         | \$108     | 3 lbs.     |
| Rifle                  | 2            | 3 hits* | 8      | \$120 | 20    | \$ 1                         | \$140     | 10 lbs.    |
| Submachine Gun (SMG)   | 2            | 1d**    | 9      | \$250 | 10    | \$12                         | \$370     | 9 lbs.     |
| Light Anti-Tank Weapon | 2            | 2d      | 7      | \$500 | 1     | -                            |           | 20 lbs.    |
| Grenade                | 1            | 1d**    | 6      | \$ 25 | 1     | -                            |           | 1 lb.      |
| Hand Fire Extinguisher | 1            |         |        | \$150 |       |                              |           | 20 lbs.    |
| Backpack               | 2 if carried |         |        | \$40  |       |                              |           | 5 lbs.     |
| Body Armor             | 2 if carried |         |        | \$250 |       | Adds 3 hits to a pedestrian. |           | 10 lbs.    |
| Fireproof Suit         | 1 if carried |         |        | \$500 |       | No fire damage when worn.    |           | 3 lbs.     |

\* Affects no part of a vehicle except tires.

\*\* Damage is halved against any part of a vehicle except the tires.



# CONTINUING CHARACTERS

For a continuing *Car Wars* campaign, make a record sheet for each character, with his name, skill in each category, prestige, wealth, and equipment owned. You may also want to record any outstanding feats he accomplishes. Characters improve as they gain combat experience. Qualities which can be improved are three different skills, Prestige, and Wealth.

|   |                  |                    |  |
|---|------------------|--------------------|--|
| Jak the Moose   |                  | Car: stock Piranha |  |
| Driver: 1   | Gunner: 2        | Cyclist: 0         |  |
| III   | HHH II           | HHH                |  |
| Prestige 2  | Wealth: \$17,250 |                    |  |
| Personal Equipment: Body Armor, Hand<br>Fire Extinguisher, Light Pistol |                  |                    |  |
| Notable Kills: Gaines, Bauer (Ace)                                      |                  |                    |  |

## SKILLS

There are three skills: Driver, Gunner, and Cyclist. Characters start with 0 in all skills, but can improve with experience.

When determining vehicle handling class (see p. 3), the driver adds his Driver or Cyclist skill level (as appropriate) to the base HC of the vehicle, to a maximum +4 bonus. Anyone firing a vehicle weapon takes his Gunner skill level as a bonus to hit on each shot.

*Gaining skill points:* Every 10 skill points gained equals one skill level. Maximum level in each skill is 4.

A driver (or cyclist) scores one Driver (or Cyclist) point for each combat he's in. (A combat is any incident in which a vehicle is fired on and fires back. Normally each full game is one combat. Referee's decisions are final.) Anyone who fires vehicle weapons in a combat scores one Gunner point. Hand weapons don't count.

*Kills:* This refers to vehicles, not people. A "kill" is scored when an enemy vehicle can no longer move or fire, either because of a direct attack or because of a crash caused by your attack. The occupants do not have to die. Killing a pedestrian is *not* a "kill," and in some arenas, it's against the rules to harm someone out of his car. In other arenas, of course, pedestrians will be shooting at you, and shooting back is perfectly legal.

Each kill is worth one extra Gunner point to the character who fired the killing shot (if any) and one Driver or Cyclist point to the driver of the vehicle that caused the kill. If a pedestrian scores a kill, it counts toward his Prestige (see below), but not skill.

## PRESTIGE

This is your status among other duellists and the millions of TV autoduel fans. Everyone starts with 0 prestige, but there is no limit to the level it can reach. Arena combat always counts for prestige; road combat may affect

prestige. There is a 1/6 chance that any road combat will be filmed by helicopter TV crews, in which case it scores as below. If not, you're an unsung hero for that bout - no prestige.

An ace is anyone who has participated in 5 confirmed kills - that is, arena kills, or road kills for which he scored prestige. A double ace has 10 confirmed kills.

For entering combat: +1.

For each confirmed kill your vehicle scores: +2.

Your vehicle "killed" but you survive, unhurt: -1.

Your vehicle "killed" but you survive: -2.

You exit your vehicle while it can move and fire: -1.

You flee the arena before the end of the match in a vehicle that can both move and fire: -1.

You attack with hand weapons while on foot: +1.

You kill a vehicle occupied by an ace: +1.

You kill a vehicle occupied by a double ace: +2.

*Extra prestige:* You may earn up to 3 extra prestige points per game for excellent play, lucky shots, or survival against bad odds. If your car rolls and burns spectacularly, and you jump out unharmed and make a witty remark, this might actually *increase* your prestige! These points are awarded by majority vote of the players and onlookers. The referee breaks ties.

*Advantages of prestige:* In any arena where cash prizes are offered, a combatant with prestige of 10 or better earns a percentage bonus equal to his prestige; i.e., prestige of 17 earns a 17% bonus.

## WEALTH

Each character begins with zero wealth. He can get started by entering an "Amateur Night" event (p. 15) where the network supplies cars for aspiring drivers. After that, there are several ways to earn money:

*Selling cars:* Used cars may be sold. Some arena contests give a survivor the right to salvage his kills.

*Arena prizes:* The big money. The referee for a campaign may set cash prizes. A typical purse would be from 50% to 150% of the total value of the vehicles competing.

*Road salvage:* What the cycle gangs do: pick a fight on the road and strip kills for salvage. Dangerous.

*Transactions with other players:* Used equipment, side bets, and whatever else you can think of.

## AUTO REPAIRS

See the vehicle data on p. 16. Destroyed components must be replaced, but an item that is only damaged can be repaired; the cost is \$100 per point of damage. *Exceptions:* Tires and wheel armor can't be repaired, but must be replaced. Armor repair cost depends on the vehicle.

Note that the replacement weapon prices are for an empty weapon. Ammo must be bought separately. Vehicle ammo costs are on p. 16; hand-weapon ammo is on p. 13.

*Vehicles cannot be repaired if they burned up, blew up, or became confetti!*



# SCENARIOS

*Car Wars* offers many different games – arenas, road duels, town battles . . . Before you start, decide:

(a) What vehicles will be used? You may use stock vehicles, or let players create their own vehicles with the *Car Wars Vehicle Design Kit*. Unless specified otherwise, all vehicles should be of equivalent cost.

(b) Will this be a road combat, arena combat, or something special? Create a map (see p. 2) with some interesting features. Will there be any hazards (e.g., debris-littered roads) or bad conditions (e.g., rain)?

(c) Determine starting positions and speeds.

(d) Will there be a referee (see p. 12)?

(e) Will players see each others' vehicles before play, or will they find out what weapons are carried, and where, "the hard way" (as they see them used)?

## ROAD BATTLES

Mark a road on the table (see p. 2). For variety, every time a car reaches the edge and the counters move back, pick up whatever debris is on the road in front of them and re-drop it.

For a two-player duel, both cars start out going the same direction at 50 mph, 1d x 6" apart. Roll randomly to see who starts in front. The winner is the survivor.

Multi-player road battles are also possible . . . in teams, or "every man for himself." Or you can set up a bandit attack, with several cycles or small vehicles starting 30" behind a larger car. Try \$20,000 worth of attackers against a single \$15,000 target.

## ARENA COMBAT

There are autoduel arenas all over North America. Use the one below or create your own; see p. 2 for ideas.

Some arena events, like those sponsored by the AADA (see below), are designed for fair competition. Others are bloody "spectacles" which (for instance) give one side greater numbers and the other side better equipment.

### HIT AND RUN

Two duellists enter at opposite ends at 60 mph. Both arena gates remain open. Win by disabling your rival's car, or by leaving through his gate before he can exit through yours.

### AMATEUR NIGHT

Amateur Night is the way most duellists break into the sport. The arena supplies the cars. All a driver needs is driving skill and a death wish . . .

**Players:** 3 to 6. Beginning characters are fine; this is a good way to start a new character.

**Cars:** Everybody gets an identical vehicle, new and fully loaded with ammo, and a suit of body armor. These are usually small, cheap vehicles; the Killer Kart is typical.

**Setup:** All cars start with their rear ends against the wall, spaced evenly around the arena. On "Turn 0," as they came up the entry ramps, they were all at 20 mph, so when they set speeds for the first turn they can add their acceleration to that if they choose.

The doors close behind the cars when they enter, so the entire edge of the table is considered a solid wall.

**Special Rules:** No hand weapons. Firing on a rival once he leaves his car is forbidden.

**Victory:** Nobody can leave until only one car is still drivable. (If it gets down to one car that can move vs. one that can shoot, the moving car will win if it can make it to any of the original exits.)

**Prizes:** The winner keeps his car. The arena will repair it to like-new condition and refill the ammo. Each survivor gets \$500 for each kill he made (remember, a kill means making a car undrivable). The referee has an extra \$1,000 in prize money to split among the drivers who made the crowd cheer the loudest.

## DIVISIONAL COMBAT

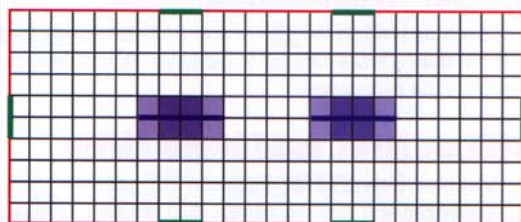
Perhaps the most popular form of autoduelling is the American Autoduel Association circuit. The AADA rates vehicles by their total cost. (The crew's hand weapons and standard 3-point body armor don't count.) Vehicles up to \$5,000 compete in Division 5, and those up to \$7,500 go in the new "Division 5 Pro." Those up to \$10,000 compete in Division 10, and so on. Other standard divisions are 15, 20, 25, and 30. Anything over \$30,000 goes in the Unlimited class.

Many events have additional rules, such as "nothing above mid-sized," "no gunners," and so on. Some are team events, with two to four cars on a team.

Not all contests are straight duels. Some are racing or obstacle events in which vehicles earn points for completing laps or objectives, and the weapons are just a way to slow down the opposition!

The bigger the event, the bigger the prize money.

**FIGURE 8: SAMPLE ARENA**



A basic arena configuration for a 2 1/2' x 6' table. Each square is 3". Gates are shown in green. The center obstacles are solid; the bigger you make them, the harder the arena. They can be simple inch-wide barriers (dark blue line) . . . squares 6" on a side (medium blue area) . . . or rectangles 6" x 12" (medium + light blue areas), making maneuvers very challenging!



# VEHICLES

## STINGER

The Stinger is a simple, efficient Division 5 design: a subcompact with a big engine and a recoilless rifle. And that's all. But that's often enough to do the job.

Stinger tactics aren't complicated . . . get the enemy in front of you and shoot him! But executing these simple tactics requires skill.

### VARIANT: BUMBLEBEE

The Bumblebee variant trades the recoilless rifle for two linked micro-missile launchers and a spikedropper. It has a smaller power plant, but more armor. This all makes it tougher but slower and less accurate, so it's more of a close-in combatant. If you can get the enemy to chase you, leave him some spikes to think about . . .

### OTHER VARIANTS AND OPTIONS

Explosive spikes (see *Firecracker*, below) are more expensive, but if you put only 4 rounds in the spikedropper, you'd still be legal for Division 5. And you might really surprise somebody.

The "Stinger Pro" package (+\$2,500) upgrades either Stinger version to compete in "Division 5 Pro." It starts with a standard Stinger or Bumblebee and adds:

- Heavy suspension, which gives +2 to HC.
- Heavy-duty tires, which have +4 DP (total of 8).
- A targeting computer, giving +1 to all rolls to hit.

### REPLACEMENT PARTS AND AMMO

**Recoilless Rifle:** \$1,500 to replace. \$35 per shot.

**Spikedropper:** \$100 to replace. Regular spikes are \$20 per shot. Explosive spikes are \$50 per shot.

**Micro-Missile Launcher:** \$750 to replace. \$20 per shot.

**Power Plant:** \$1,500 for the basic Stinger. Only \$1,000 for the smaller power plant on the Bumblebee.

**Tires:** \$50 each to replace standard tires. \$175 for heavy-duty tires.

**Armor:** \$10 per point replaced.

Other items are lost only if the vehicle is destroyed.

## FIRECRACKER

Division 5 fans like big action from those little cars, and the Firecracker provides *lots* of action.

The only offensive weapon the Firecracker carries is a single heavy rocket in front. It has a spikedropper, loaded with explosive spikes for a bit more punch. But the Firecracker's real weapon is the vehicle itself . . . a light ramplate backed up with 70 points of front armor!

Typical Firecracker tactics involve triggering the rocket the instant before collision, hoping for enough combined damage to totally confetti the victim.

It's absolutely vital for the Firecracker driver to close with the foe. You don't have a thing that can hurt him from any distance. You have to get up close and personal.

### VARIANT: FIEND

The Fiend variant keeps the same chassis but totally changes the body style and weapon mix . . . and therefore requires different tactics. A single recoilless rifle is mounted to the front; the body style is slimmed to an ultra-low profile. The power plant is reduced in size and enhanced with platinum catalysts to keep the same acceleration (top speed is actually higher due to the ultra-low profile). Armor is drastically reduced.

Thus, the Fiend becomes a "fighter plane" combatant. Instead of closing with the foe, it needs to speed around and snipe from a distance.

### OTHER VARIANTS AND OPTIONS

The Firecracker 2 is a Division 5 Pro design. Start with the basic Firecracker and:

- Replace the light ramplate with a heavy ramplate.
- Change tires to heavy-duty and high-performance. The high-performance option raises Handling Class to 4.
- Reduce armor to 86 (distributed as you choose).
- Reduce power plant to 2 DP with platinum catalysts. Cost is \$7,460; Confetti Number becomes 37.

Acceleration and top speed stay the same. This is a more extreme design than the basic Firecracker. The heavy ramplate lets it do more damage . . . but with lighter armor, it can *withstand* less damage.

### Special Features and Weapons

**Explosive Spikes:** Use the red side of the spike counters. Explosive spikes do a full die of damage to tires, including solid tires!

**Ramplate:** A sloped, sharpened, hardened, and reinforced front bumper. A vehicle with a ramplate takes only half damage when it rams another vehicle, and does +1 damage per die rolled (for a light ramplate) or +2 per die rolled (for a heavy ramplate). The ramplate is lost if all front armor is lost.

### REPLACEMENT PARTS AND AMMO

**Heavy Rocket:** \$200 to replace.

**Spikedropper:** \$100 to replace. Regular spikes are \$20 per shot. Explosive spikes are \$50 per shot.

**Recoilless Rifle:** \$1,500 to replace. \$35 per shot.

**Power Plant:** \$1,000 for each model.

**Tires:** \$50 each to replace standard tires. \$175 each for heavy-duty tires. An extra \$125 each for HP tires.

**Armor:** \$10 per point replaced.

**Ramplate:** \$500 for light ramplate, \$1,000 for heavy. Other items are lost only if the vehicle is destroyed.

### COUNTER SHEET NOTES

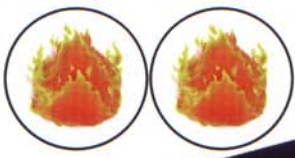
This set includes lots of spikes, since both vehicles use them. There are also a dozen or so mines. Scatter them where the players can enjoy them . . .



Cut outside the black lines to make the counters exactly the right size. A hobby knife gives a straighter cut than scissors, but if you use a knife, don't cut your fingers off, or if you do, don't complain to us.

# CUT AWAYS

## TURNING KEY



| TARGETING MODIFIERS                |  |
|------------------------------------|--|
| <b>Range</b>                       |  |
| Point Blank (less than 3" away):   | +4   |
| Medium Range (3" to 11.99"):       | 0  |
| Long Range (12" and up):           | -1   |
| Each full 12":                     |  |
| <b>Movement</b>                    |  |
| Target or firer is not moving:     | +1 each  |
| Firing pedestrian is braced:       | -1   |
| <b>Vehicle Targets</b>             |  |
| Compact or Subcompact:             | +1   |
| Trike:                             | -1   |
| Cycle:                             | -1   |
| Front or rear of target vehicle:   | -2   |
| Low Profile:                       | -3   |
| Ultra-Low Profile:                 | -1   |
| <b>Specific Targets on Vehicle</b> |  |
| Turret:                            | -1   |
| Wheel:                             | -2   |
| <b>Other Targets</b>               |  |
| Pedestrian:                        | -2   |
| Building:                          | -3   |
| <b>Visibility</b>                  |  |
| Rain:                              | +10  |
| Heavy rain, fog, or night:         | -1   |
| Target under cover of rubble:      | -2   |
| <b>Miscellaneous</b>               |  |
| Gunner Skill:                      | + skill level  |
| Sustained Fire:                    | +1 for second shot,<br>+2 for third shot, +3 for further shots |

D1 30°

D0 15°

D4 75°

D5 90°

D3 DRIFTS  
D1

D3 60°

D2 45°

D1 30°

D1 30°

D1 30°

D1 30°





# CATWARS

## TURNING KEY

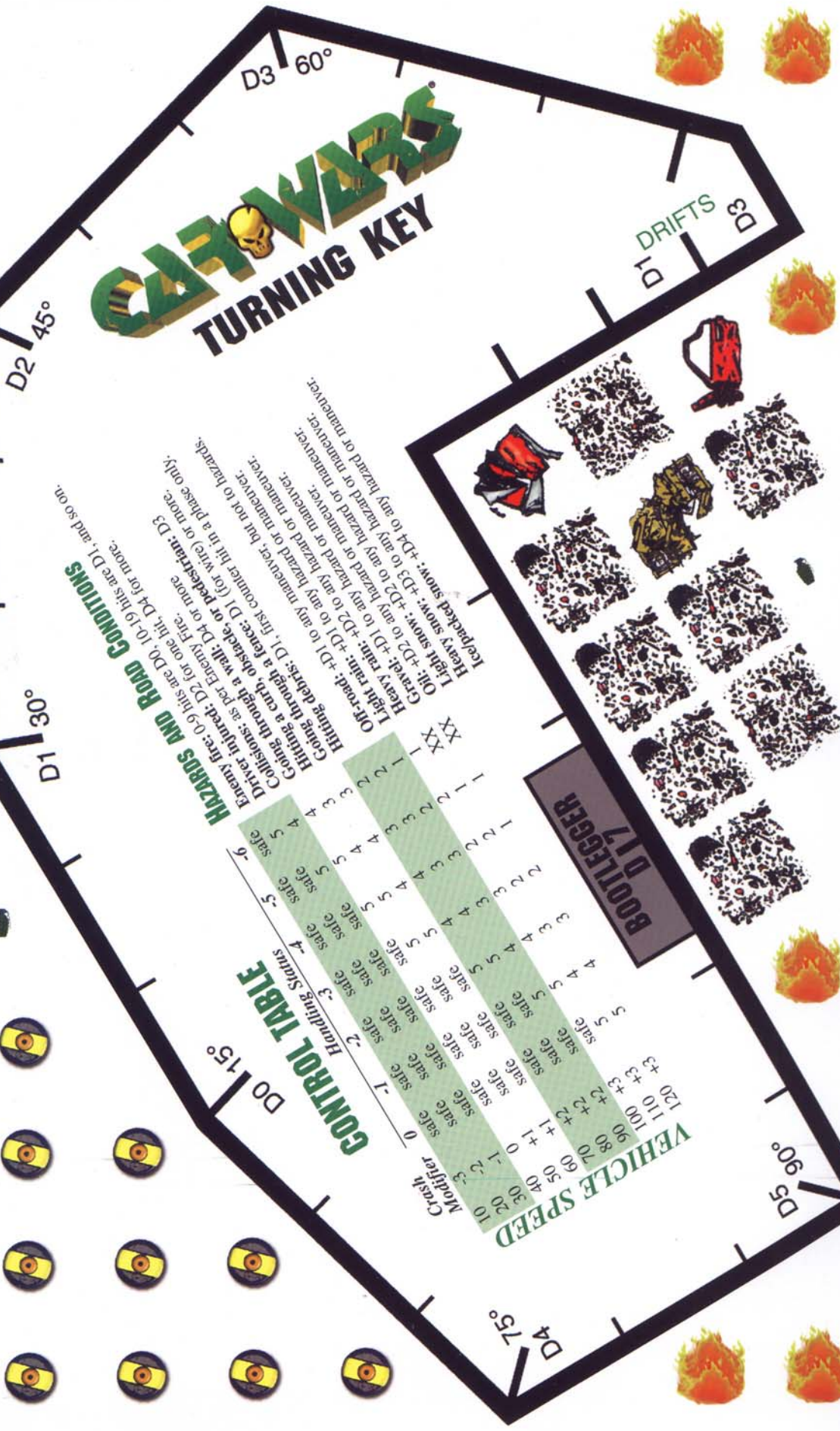
Ice-packed snow: +D4 to any hazard or maneuver.  
 Heavy snow: +D3 to any hazard or maneuver.  
 Oil: +D2 to any hazard or maneuver.  
 Gravel: +D1 to any hazard or maneuver.  
 Heavy rain: +D2 to any hazard or maneuver.  
 Light rain: +D1 to any hazard or maneuver.  
 Off-road: +D1 to any hazard or maneuver.  
 Hitting debris: D1 to any hazard or maneuver.  
 Going through a fence: D1 to any hazard or maneuver.  
 Going through a curb, obstacle, or pedestrian: D3  
 Collisions: as per Enemy Fire.  
 Driver injured: D2 for one hit, D4 for more.  
 Enemy fire: 0-9 hits are D0, 10-19 hits are D1, and so on.

### HAZARDS AND ROAD CONDITIONS

### CONTROL TABLE

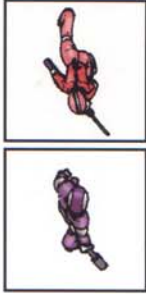
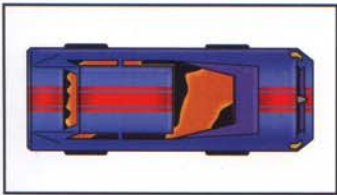
| Vehicle Speed | 0    | -1   | -2   | -3   | -4   | -5   | -6   |
|---------------|------|------|------|------|------|------|------|
| Crash         | safe | safe | safe | safe | safe | safe | safe |
| 10            | safe | safe | safe | safe | safe | safe | safe |
| 20            | safe | safe | safe | safe | safe | safe | safe |
| 30            | safe | safe | safe | safe | safe | safe | safe |
| 40            | safe | safe | safe | safe | safe | safe | safe |
| 50            | safe | safe | safe | safe | safe | safe | safe |
| 60            | safe | safe | safe | safe | safe | safe | safe |
| 70            | safe | safe | safe | safe | safe | safe | safe |
| 80            | safe | safe | safe | safe | safe | safe | safe |
| 90            | safe | safe | safe | safe | safe | safe | safe |
| 100           | safe | safe | safe | safe | safe | safe | safe |
| 110           | safe | safe | safe | safe | safe | safe | safe |
| 120           | safe | safe | safe | safe | safe | safe | safe |
| 120 +3        | safe | safe | safe | safe | safe | safe | safe |
| 100 +2        | safe | safe | safe | safe | safe | safe | safe |
| 80 +1         | safe | safe | safe | safe | safe | safe | safe |
| 60            | safe | safe | safe | safe | safe | safe | safe |
| 40            | safe | safe | safe | safe | safe | safe | safe |
| 30            | safe | safe | safe | safe | safe | safe | safe |
| 20            | safe | safe | safe | safe | safe | safe | safe |
| 10            | safe | safe | safe | safe | safe | safe | safe |
| 1             | 1    | 2    | 3    | 4    | 5    | 6    | 7    |
| 2             | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
| 3             | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
| 4             | 4    | 5    | 6    | 7    | 8    | 9    | 10   |
| 5             | 5    | 6    | 7    | 8    | 9    | 10   | 11   |
| 6             | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
| 7             | 7    | 8    | 9    | 10   | 11   | 12   | 13   |
| 8             | 8    | 9    | 10   | 11   | 12   | 13   | 14   |
| 9             | 9    | 10   | 11   | 12   | 13   | 14   | 15   |
| 10            | 10   | 11   | 12   | 13   | 14   | 15   | 16   |
| 11            | 11   | 12   | 13   | 14   | 15   | 16   | 17   |
| 12            | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
| 13            | 13   | 14   | 15   | 16   | 17   | 18   | 19   |
| 14            | 14   | 15   | 16   | 17   | 18   | 19   | 20   |
| 15            | 15   | 16   | 17   | 18   | 19   | 20   | 21   |
| 16            | 16   | 17   | 18   | 19   | 20   | 21   | 22   |
| 17            | 17   | 18   | 19   | 20   | 21   | 22   | 23   |
| 18            | 18   | 19   | 20   | 21   | 22   | 23   | 24   |
| 19            | 19   | 20   | 21   | 22   | 23   | 24   | 25   |
| 20            | 20   | 21   | 22   | 23   | 24   | 25   | 26   |
| 21            | 21   | 22   | 23   | 24   | 25   | 26   | 27   |
| 22            | 22   | 23   | 24   | 25   | 26   | 27   | 28   |
| 23            | 23   | 24   | 25   | 26   | 27   | 28   | 29   |
| 24            | 24   | 25   | 26   | 27   | 28   | 29   | 30   |
| 25            | 25   | 26   | 27   | 28   | 29   | 30   | 31   |
| 26            | 26   | 27   | 28   | 29   | 30   | 31   | 32   |
| 27            | 27   | 28   | 29   | 30   | 31   | 32   | 33   |
| 28            | 28   | 29   | 30   | 31   | 32   | 33   | 34   |
| 29            | 29   | 30   | 31   | 32   | 33   | 34   | 35   |
| 30            | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
| 31            | 31   | 32   | 33   | 34   | 35   | 36   | 37   |
| 32            | 32   | 33   | 34   | 35   | 36   | 37   | 38   |
| 33            | 33   | 34   | 35   | 36   | 37   | 38   | 39   |
| 34            | 34   | 35   | 36   | 37   | 38   | 39   | 40   |
| 35            | 35   | 36   | 37   | 38   | 39   | 40   | 41   |
| 36            | 36   | 37   | 38   | 39   | 40   | 41   | 42   |
| 37            | 37   | 38   | 39   | 40   | 41   | 42   | 43   |
| 38            | 38   | 39   | 40   | 41   | 42   | 43   | 44   |
| 39            | 39   | 40   | 41   | 42   | 43   | 44   | 45   |
| 40            | 40   | 41   | 42   | 43   | 44   | 45   | 46   |
| 41            | 41   | 42   | 43   | 44   | 45   | 46   | 47   |
| 42            | 42   | 43   | 44   | 45   | 46   | 47   | 48   |
| 43            | 43   | 44   | 45   | 46   | 47   | 48   | 49   |
| 44            | 44   | 45   | 46   | 47   | 48   | 49   | 50   |
| 45            | 45   | 46   | 47   | 48   | 49   | 50   | 51   |
| 46            | 46   | 47   | 48   | 49   | 50   | 51   | 52   |
| 47            | 47   | 48   | 49   | 50   | 51   | 52   | 53   |
| 48            | 48   | 49   | 50   | 51   | 52   | 53   | 54   |
| 49            | 49   | 50   | 51   | 52   | 53   | 54   | 55   |
| 50            | 50   | 51   | 52   | 53   | 54   | 55   | 56   |
| 51            | 51   | 52   | 53   | 54   | 55   | 56   | 57   |
| 52            | 52   | 53   | 54   | 55   | 56   | 57   | 58   |
| 53            | 53   | 54   | 55   | 56   | 57   | 58   | 59   |
| 54            | 54   | 55   | 56   | 57   | 58   | 59   | 60   |
| 55            | 55   | 56   | 57   | 58   | 59   | 60   | 61   |
| 56            | 56   | 57   | 58   | 59   | 60   | 61   | 62   |
| 57            | 57   | 58   | 59   | 60   | 61   | 62   | 63   |
| 58            | 58   | 59   | 60   | 61   | 62   | 63   | 64   |
| 59            | 59   | 60   | 61   | 62   | 63   | 64   | 65   |
| 60            | 60   | 61   | 62   | 63   | 64   | 65   | 66   |
| 61            | 61   | 62   | 63   | 64   | 65   | 66   | 67   |
| 62            | 62   | 63   | 64   | 65   | 66   | 67   | 68   |
| 63            | 63   | 64   | 65   | 66   | 67   | 68   | 69   |
| 64            | 64   | 65   | 66   | 67   | 68   | 69   | 70   |
| 65            | 65   | 66   | 67   | 68   | 69   | 70   | 71   |
| 66            | 66   | 67   | 68   | 69   | 70   | 71   | 72   |
| 67            | 67   | 68   | 69   | 70   | 71   | 72   | 73   |
| 68            | 68   | 69   | 70   | 71   | 72   | 73   | 74   |
| 69            | 69   | 70   | 71   | 72   | 73   | 74   | 75   |
| 70            | 70   | 71   | 72   | 73   | 74   | 75   | 76   |
| 71            | 71   | 72   | 73   | 74   | 75   | 76   | 77   |
| 72            | 72   | 73   | 74   | 75   | 76   | 77   | 78   |
| 73            | 73   | 74   | 75   | 76   | 77   | 78   | 79   |
| 74            | 74   | 75   | 76   | 77   | 78   | 79   | 80   |
| 75            | 75   | 76   | 77   | 78   | 79   | 80   | 81   |
| 76            | 76   | 77   | 78   | 79   | 80   | 81   | 82   |
| 77            | 77   | 78   | 79   | 80   | 81   | 82   | 83   |
| 78            | 78   | 79   | 80   | 81   | 82   | 83   | 84   |
| 79            | 79   | 80   | 81   | 82   | 83   | 84   | 85   |
| 80            | 80   | 81   | 82   | 83   | 84   | 85   | 86   |
| 81            | 81   | 82   | 83   | 84   | 85   | 86   | 87   |
| 82            | 82   | 83   | 84   | 85   | 86   | 87   | 88   |
| 83            | 83   | 84   | 85   | 86   | 87   | 88   | 89   |
| 84            | 84   | 85   | 86   | 87   | 88   | 89   | 90   |
| 85            | 85   | 86   | 87   | 88   | 89   | 90   | 91   |
| 86            | 86   | 87   | 88   | 89   | 90   | 91   | 92   |
| 87            | 87   | 88   | 89   | 90   | 91   | 92   | 93   |
| 88            | 88   | 89   | 90   | 91   | 92   | 93   | 94   |
| 89            | 89   | 90   | 91   | 92   | 93   | 94   | 95   |
| 90            | 90   | 91   | 92   | 93   | 94   | 95   | 96   |
| 91            | 91   | 92   | 93   | 94   | 95   | 96   | 97   |
| 92            | 92   | 93   | 94   | 95   | 96   | 97   | 98   |
| 93            | 93   | 94   | 95   | 96   | 97   | 98   | 99   |
| 94            | 94   | 95   | 96   | 97   | 98   | 99   | 100  |
| 95            | 95   | 96   | 97   | 98   | 99   | 100  | 101  |
| 96            | 96   | 97   | 98   | 99   | 100  | 101  | 102  |
| 97            | 97   | 98   | 99   | 100  | 101  | 102  | 103  |
| 98            | 98   | 99   | 100  | 101  | 102  | 103  | 104  |
| 99            | 99   | 100  | 101  | 102  | 103  | 104  | 105  |
| 100           | 100  | 101  | 102  | 103  | 104  | 105  | 106  |

### BOTLENECK D17

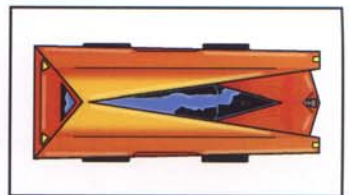




FIRECRACKER



STINGER



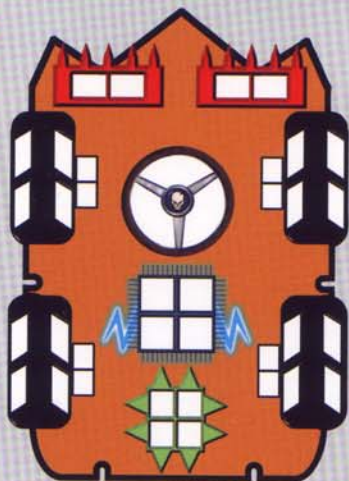






# BUNBLEBEE

HS  
6  
5  
4  
3  
2  
1  
0  
-1  
-2  
-3  
-4  
-5  
-6



SUBCOMPACT:  
-1 TO TARGET

WWW.SJGAMES.COM / CARWARS /

HC: 2  
ACCEL: 10 MPH  
TOP SPEED: 90 MPH  
CURRENT SPEED:

SIZE: SUBCOMPACT  
WEIGHT: 2,370 LBS.  
COST: \$5,000

| WEAPONS                | To HIT | DMG  | AMMO |
|------------------------|--------|------|------|
| MICRO-MISSILE LAUNCHER | 7      | 1D   | 10   |
| MICRO-MISSILE LAUNCHER | 7      | 1D   | 10   |
| SPIKEDROPPER           | -      | 1D-2 | 10   |

EXTRAS  
LINK (MMLs)

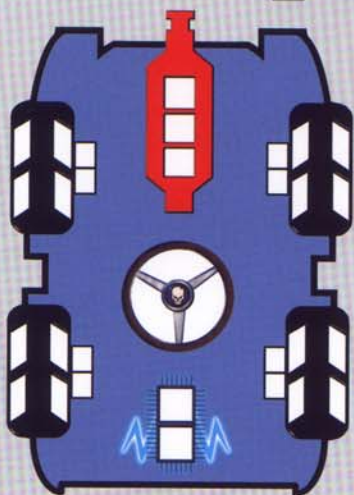
DRIVER  
DRIVER SKILL:  
GUNNER SKILL:

ARMOR: 95  
F: 35 B: 16 L: 15 R: 15 T: 5 U: 9

CONFETTI NUMBER: 31

# FIEND

HS  
6  
5  
4  
3  
2  
1  
0  
-1  
-2  
-3  
-4  
-5  
-6



ULTRA-LOW PROFILE  
SUBCOMPACT:  
-3 TO TARGET

WWW.SJGAMES.COM / CARWARS /

HC: 2  
ACCEL: 10 MPH  
TOP SPEED: 100 MPH  
CURRENT SPEED:

SIZE: SUBCOMPACT  
WEIGHT: 2,220 LBS.  
COST: \$5,000

| WEAPONS          | To HIT | DMG | AMMO |
|------------------|--------|-----|------|
| RECOILLESS RIFLE | 8      | 2D  | 10   |

EXTRAS  
PLAT CATALYSTS

DRIVER  
DRIVER SKILL:  
GUNNER SKILL:

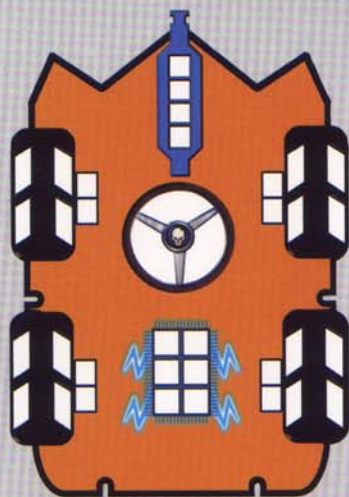
ARMOR: 85  
F: 24 B: 16 L: 16 R: 16 T: 5 U: 8

CONFETTI NUMBER: 29



# STINGER

HS  
6  
5  
4  
3  
2  
1  
0  
-1  
-2  
-3  
-4  
-5  
-6



SUBCOMPACT:  
-1 TO TARGET

WWW.SJGAMES.COM / CARWARS /

HC: 2  
ACCEL: 20 MPH  
TOP SPEED: 100 MPH  
CURRENT SPEED:

WEAPONS  
RECOILLESS RIFLE

EXTRAS

ARMOR: 85  
F: 25 B: 15 L: 15

SIZE: SUBCOMPACT  
WEIGHT: 2,495 LBS.  
COST: \$5,000

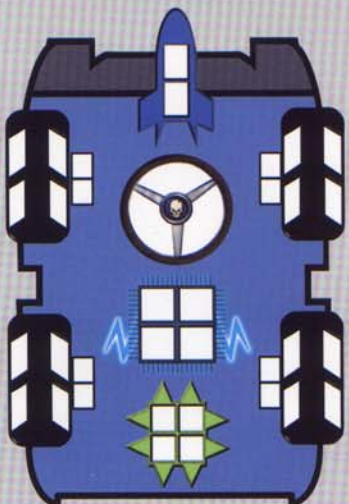
To HIT DMG AMMO  
8 2D 10

DRIVER  
DRIVER SKILL:  
GUNNER SKILL:

CONFETTI NUMBER: 33  
R: 15 T: 5 U: 10

# FIRECRACKER

HS  
6  
5  
4  
3  
2  
1  
0  
-1  
-2  
-3  
-4  
-5  
-6



SUBCOMPACT:  
-1 TO TARGET

WWW.SJGAMES.COM / CARWARS /

HC: 2  
ACCEL: 10 MPH  
TOP SPEED: 90 MPH  
CURRENT SPEED:

WEAPONS  
HEAVY ROCKET  
SPIKEDROPPER  
W/ EXPLOSIVE SPIKES

EXTRAS  
LIGHT RAMPLATE

ARMOR: 151

F: 66 B: 30 L: 20 R: 20 T: 5 U: 10

SIZE: SUBCOMPACT  
WEIGHT: 2,800 LBS.  
COST: \$4,810

To HIT DMG AMMO  
6 3D 1  
- 1D 10

DRIVER  
DRIVER SKILL:  
GUNNER SKILL:

CONFETTI NUMBER: 37