

Arduino Bootcamp : Learning Through Projects

Infrared Repeater

Project Objectives

- In this project you will learn:
 - How infrared receivers and LEDs work
 - How to connect them in a circuit
 - Introduction to the popular IRremote library
 - How to record and playback signals
 - EEPROM for storing data even when the Arduino is turned off
 - `get()` and `put()` methods

Parts

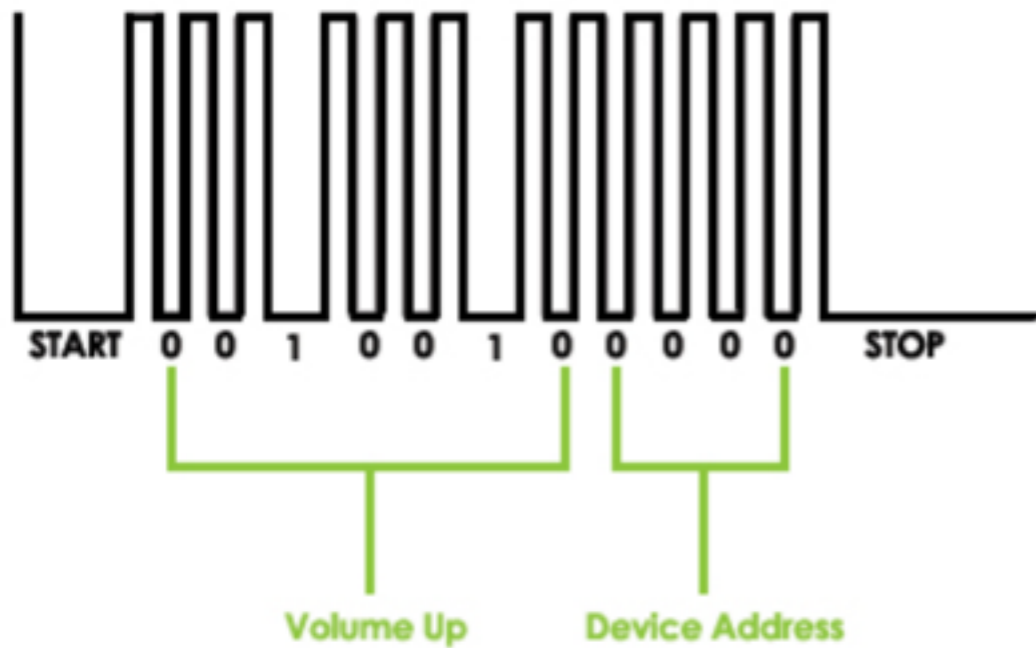
- Arduino Uno
- USB A-B cable
- Breadboard
- IR Receiver (TSOP382)
- IR LED
- 220 ohm resistor
- 3 push button switches
- Connecting wires

How IR works

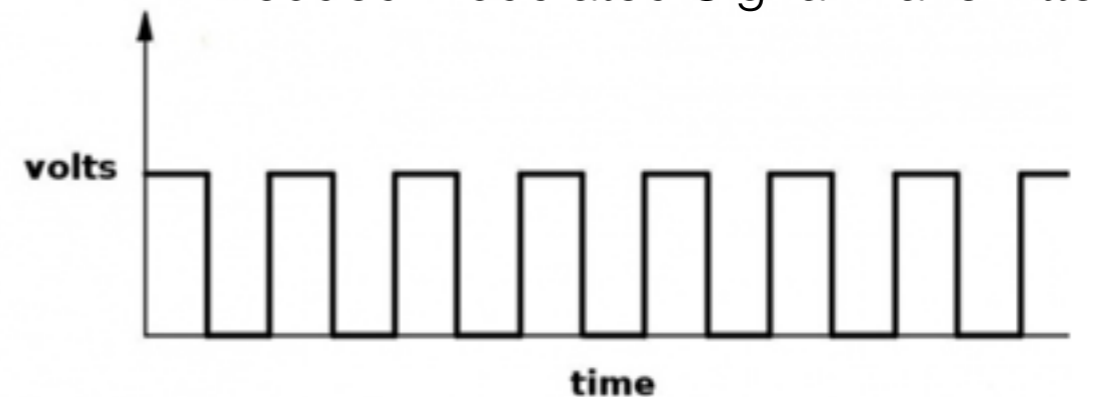
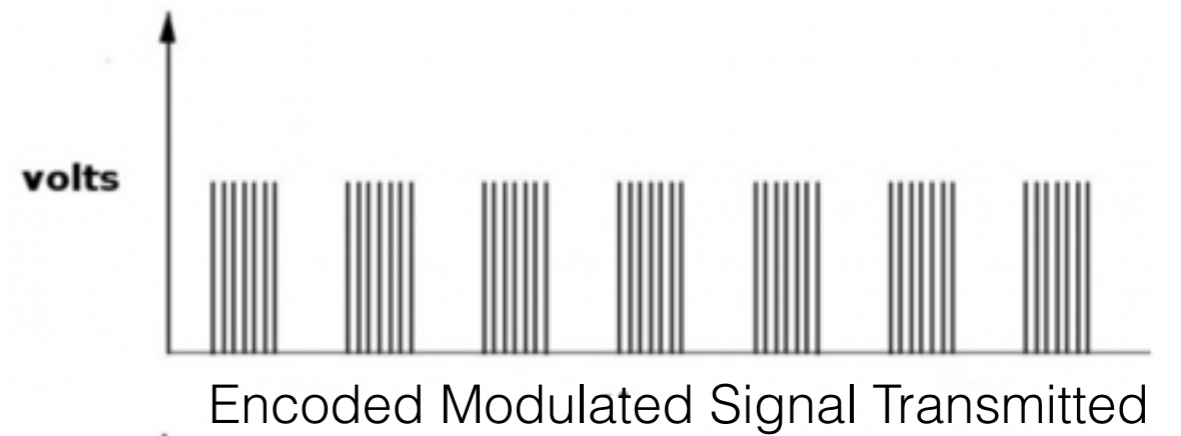


IR Receiver

IR LED

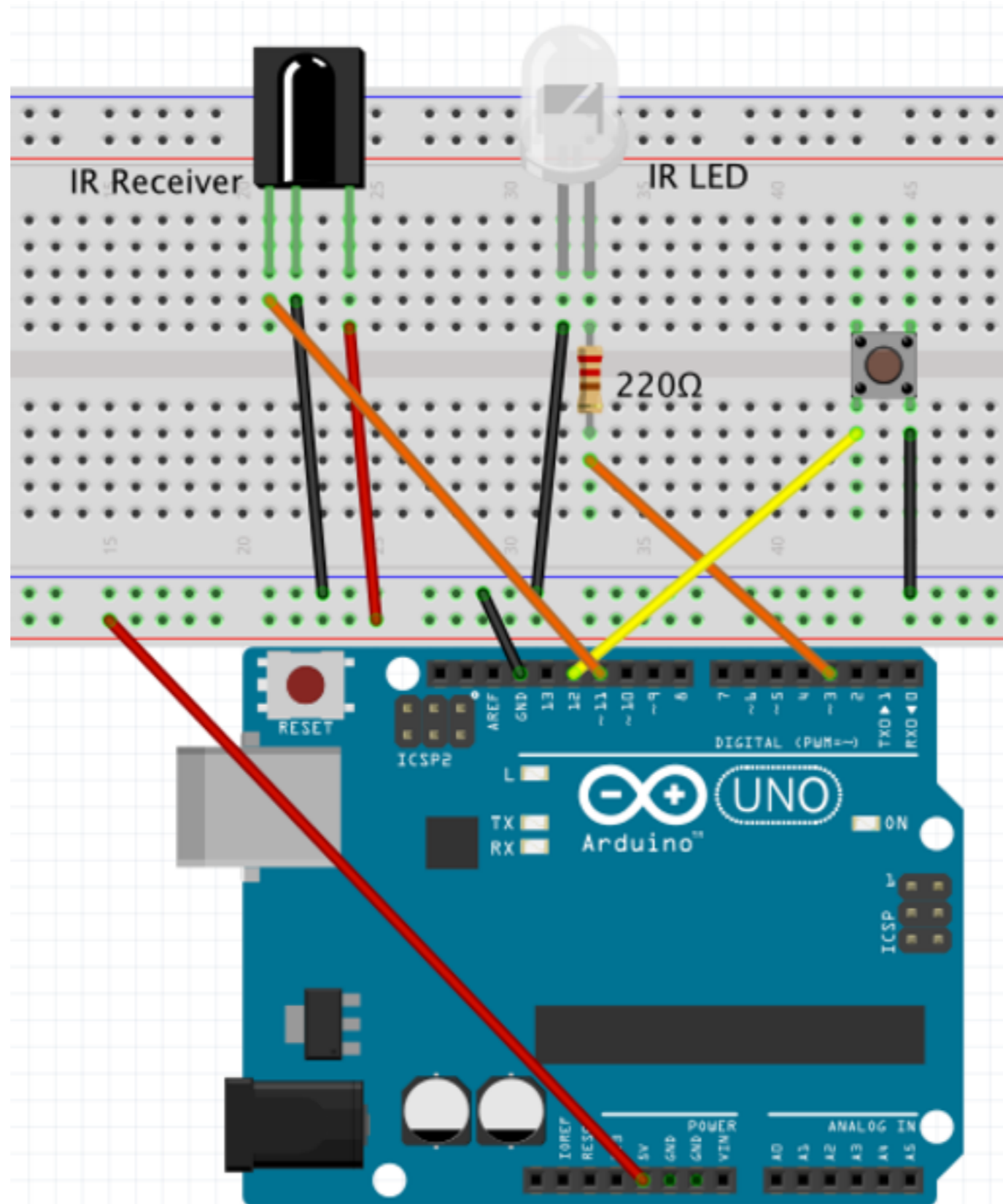


IR Transmission

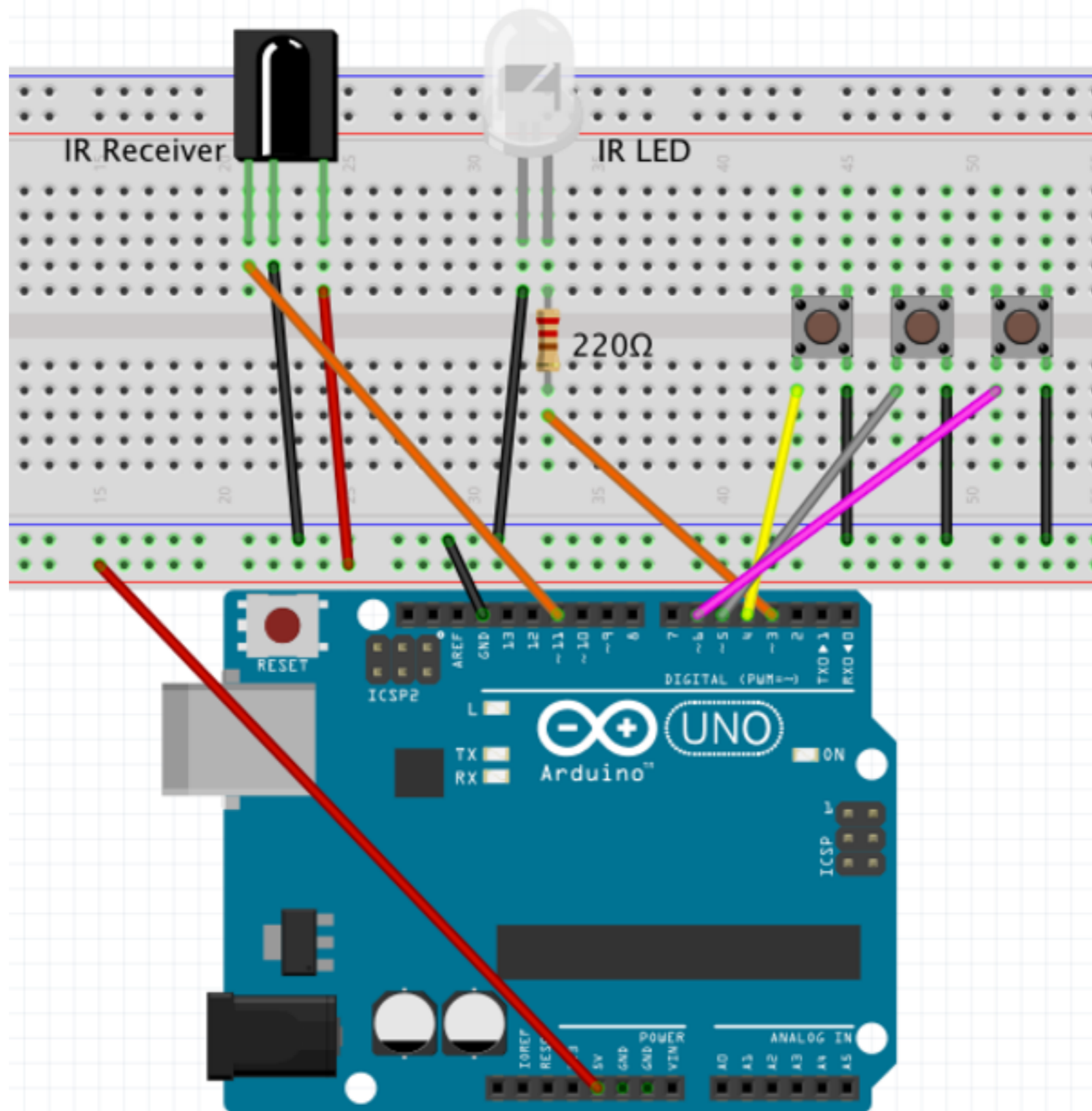


Demodulated Binary Output Generated

IR Record and Send Circuit Diagram



IR Repeater Circuit Diagram



Summary

- In this project you learnt:
 - How IR receivers and LEDs work
 - Learned how to record and playback IR signals
 - The IRremote library
 - EEPROM