

## Activity #13: IR Communication, RGB LEDs and Speakers

**CHALLENGES:** Figure out a way to:

- use a TV remote to control a multi-color LED (RGB LED) using IR Communication
- use a photo-resistor to control the note played by a speaker

For each challenge, using [Fritzing](#), make a schematic diagram of your setup. Copy and paste it into a file with the text of your code. (You may also want to take a picture of the hardware using your phone and insert into this document as well).

### **Resources for IR Communication**

1. [IR Sensor](#) from AdaFruit
2. [IR Communication](#) by SparkFun
3. [Arduino IR Sensor Tutorial](#) on YouTube
4. **Chapter 10: Remotely Controlling External Devices from Arduino Cookbook** by Michael Margolis
5. Google "Arduino IR Sensor"

### **Resources RGB LEDs** (NOTE: We are using "Common Anode" RGB LEDs)

1. [Diffused RGB 10mm LED](#) from AdaFruit
2. [Arduino Lesson 3: RGB LEDs](#) from AdaFruit
3. [RGB LED Tutorial](#) from Instructables
4. **Chapter 3: LED Effects from Beginning Arduino** by Michael McRoberts
5. Google "Arduino RGB LED"

### **Resources for Using the Arduino to Control Speakers**

1. [Play a Melody using the tone\(\) function](#) by Arduino
2. Google "Arduino Speaker"