DIY Motion Sensor Alert System

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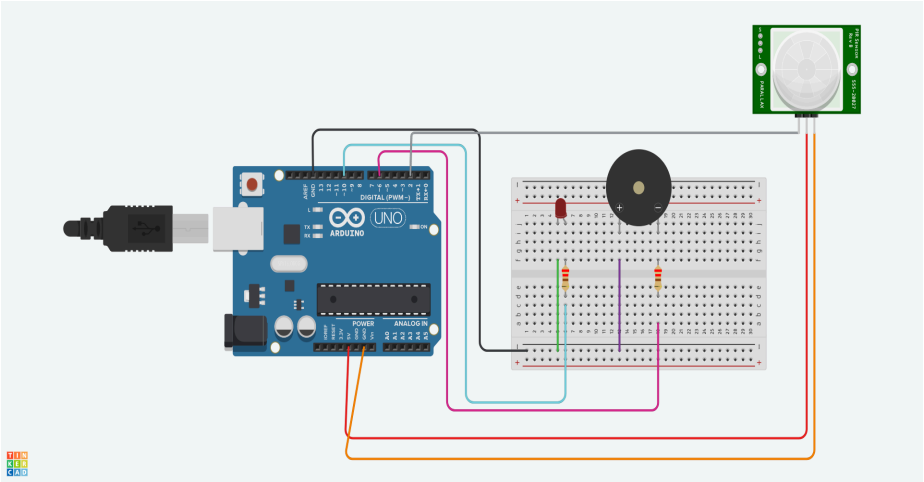

Hardware and Software Requirements

- Arduino Mega2560 Controller Board
- 830 tie-points Breadboard (small or large works)
- HC-SR501 PIR motion sensor
- Passive Buzzer
- 5 Jumper wires
- 3 male to female wires
- Two 220 ohms resistors
- Arduino IDE 2.3.3

Setting up

- Follow instructions through tinkercad diagram
- **Make Sure:**
  - Buzzer is connected to pin 6 on arduino
  - LED is connected to pin 10 on arduino
  - GND is connected to pin 2 on arduino from PIR sensor
  - OUT(power) is connected to 5v on arduino
  - VCC is connected to GND on arduino

Code

- Follow this code in order to use the motion sensor alarm correctly(Created by Celine Pei Rong)

```
bool isToneOn = false ;
int buzzerFreq = 800 ;
int LED = 10;

void setup () {
pinMode (2, INPUT) ;
pinMode (6, OUTPUT) ;
pinMode (LED, OUTPUT) ;
}

void loop () {
if (digitalRead (2) == HIGH ) {
for (int a = 0; a < 30; a++) {

if (isToneOn) {
noTone (6) ;
isToneOn = false ;
  digitalWrite (led,LOW) ;
} else {
tone (6, buzzerFreq) ;
isToneOn = true ;
  digitalWrite (LED, HIGH) ;
}
delay (500) ;
  }
 }
}
```

Optional:

- Place in box and create a hole for PIR sensor, to make it look like an actual alert system