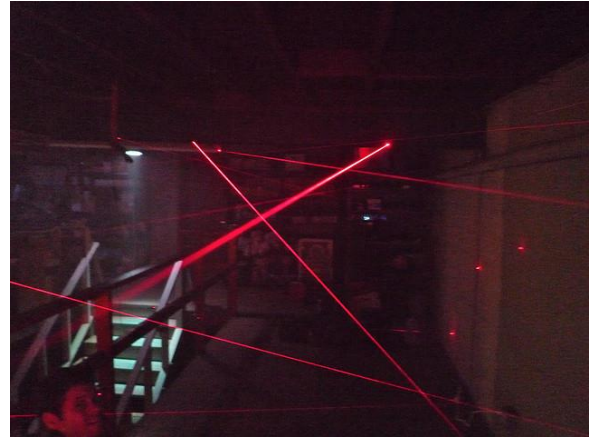




The Laser Alarm

What is it?

These are the famous red laser lines that trigger an alarm when tripped. Usually these are created by a single laser, a series of reflectors/mirrors and an LDR sensor. They are commonplace in bank vaults, museums and they are usually the mechanism that saves people from being crushed by elevator doors.



How to make it?

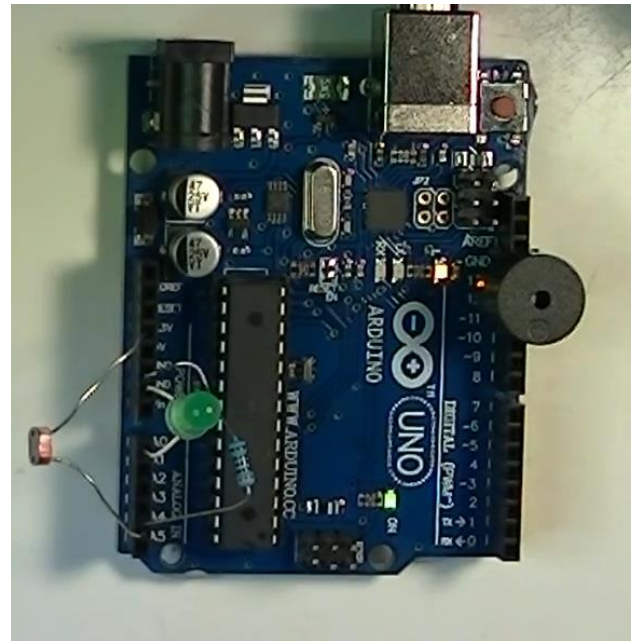
Step 1: connect the LDR into 3.3V and pin A4 on the Arduino

Step 2: Connect a resistor between A4 (same pin where the LDR is) and a GND pin

Step 3: Place an LED with long leg in A0 and short leg in GND (make sure it's a large LED!)

Step 4: Place a buzzer with long leg in pin 11 and short leg in GND

Step 5: Upload program called "Laser_tripwire"



To make your laser alarm go off more easily decrease the number circled in red, to make your laser alarm go off less easily increase the number circled in red:

```

int ldrPin = A4;    // the cell and 10K pulldown are connected to a0
int sirenPin = 11; //pin 3 selected!!
int ledPin = A0;
long ldrValue1, ldrValue2;

void setup(void) {
  pinMode (sirenPin,OUTPUT); // set the siren pin as output
  pinMode (ledPin,OUTPUT); // set the siren pin as output
  pinMode (ldrPin,INPUT); // set the siren pin as output
  //Serial.begin(9600);
}

void loop(void) {
  ldrValue1 = analogRead(ldrPin);
  delay(10);
  ldrValue2 = analogRead(ldrPin);

  if (ldrValue1-ldrValue2 > 20 {
    digitalWrite(sirenPin,HIGH);
    digitalWrite(ledPin,HIGH);
    delay(1000);
  }
  else{
    digitalWrite(sirenPin,LOW);
    digitalWrite(ledPin,LOW);
  }
}

```