

5. Proximity Sensor

```
int TRIG = 5;
int ECO = 6;
int LED = 3;
int DURACION;
int DISTANCIA;
int LED2 = 2;
int LED3 = 4;
int ALERTA = 7;

void setup() {

  pinMode(TRIG, OUTPUT);
  pinMode(ECO, INPUT);
  pinMode(LED, OUTPUT);
  pinMode(LED2, OUTPUT);
  pinMode(LED3, OUTPUT);
  pinMode(ALERTA, OUTPUT);
  Serial.begin(9600);
}

void loop() {

  digitalWrite(TRIG, HIGH);
  delay(1);
  digitalWrite(TRIG, LOW);
  DURACION = pulseIn(ECO, HIGH);
  DISTANCIA = DURACION / 58.2;
  Serial.println(DISTANCIA);
  delay(200);

  if (DISTANCIA <= 15 && DISTANCIA >= 8 ) {
    digitalWrite(LED, HIGH);
  }
  else {
    digitalWrite(LED, LOW);

    if (DISTANCIA <= 20 && DISTANCIA > 15) {
      digitalWrite(LED2, HIGH);
    }
  }
}
```

```
}  
else {  
    digitalWrite (LED2, LOW);  
  
    if (DISTANCIA > 20) {  
        digitalWrite(LED3, HIGH);  
  
    }  
    else {  
        digitalWrite (LED3, LOW);  
  
if (DISTANCIA < 7 && DISTANCIA >= 0) {  
    digitalWrite (ALERTA, HIGH);  
    delay(150);  
    digitalWrite (ALERTA, LOW);  
    delay(150);  
}  
else {  
    digitalWrite (ALERTA, LOW);  
}  
    }  
}
```