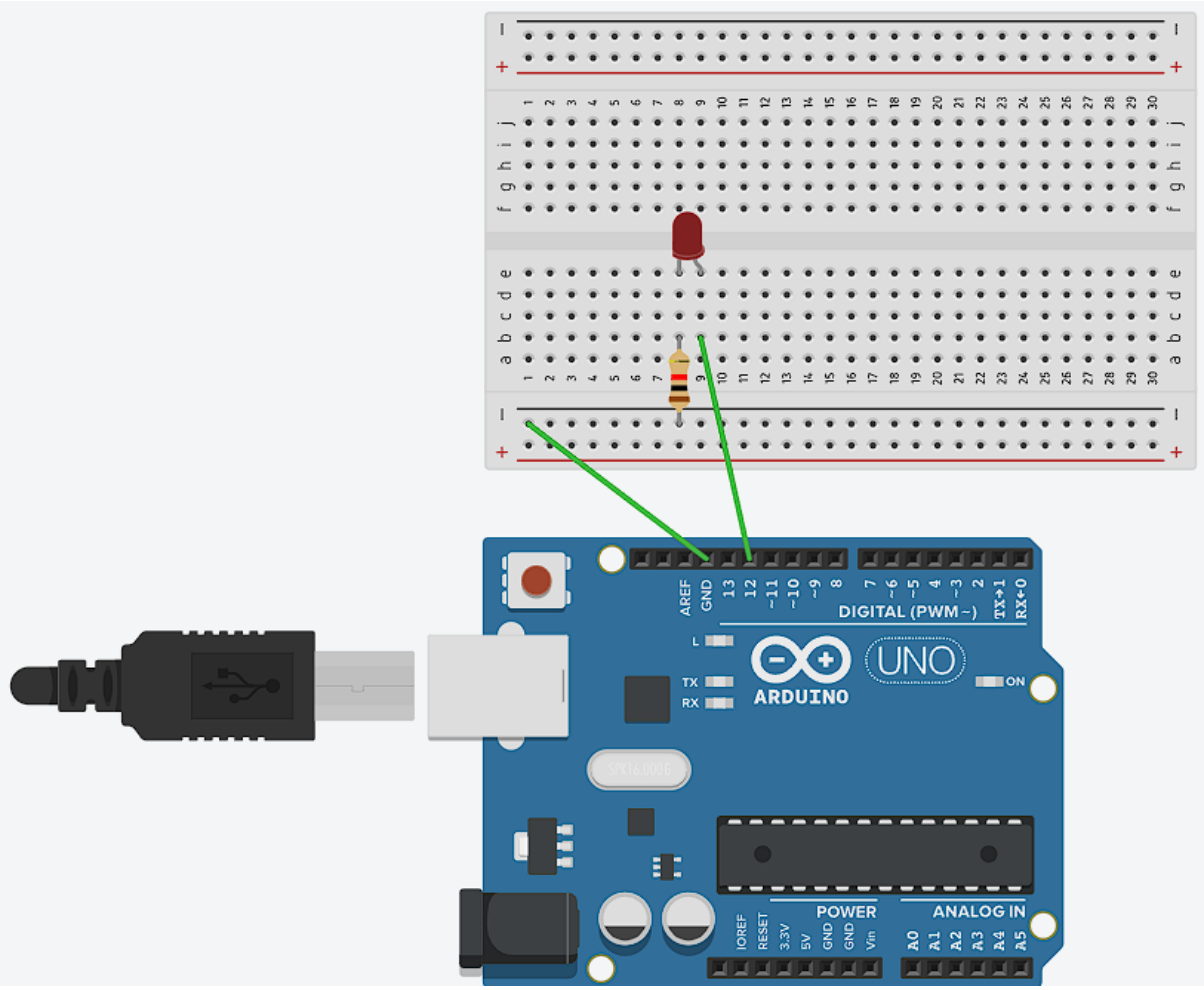
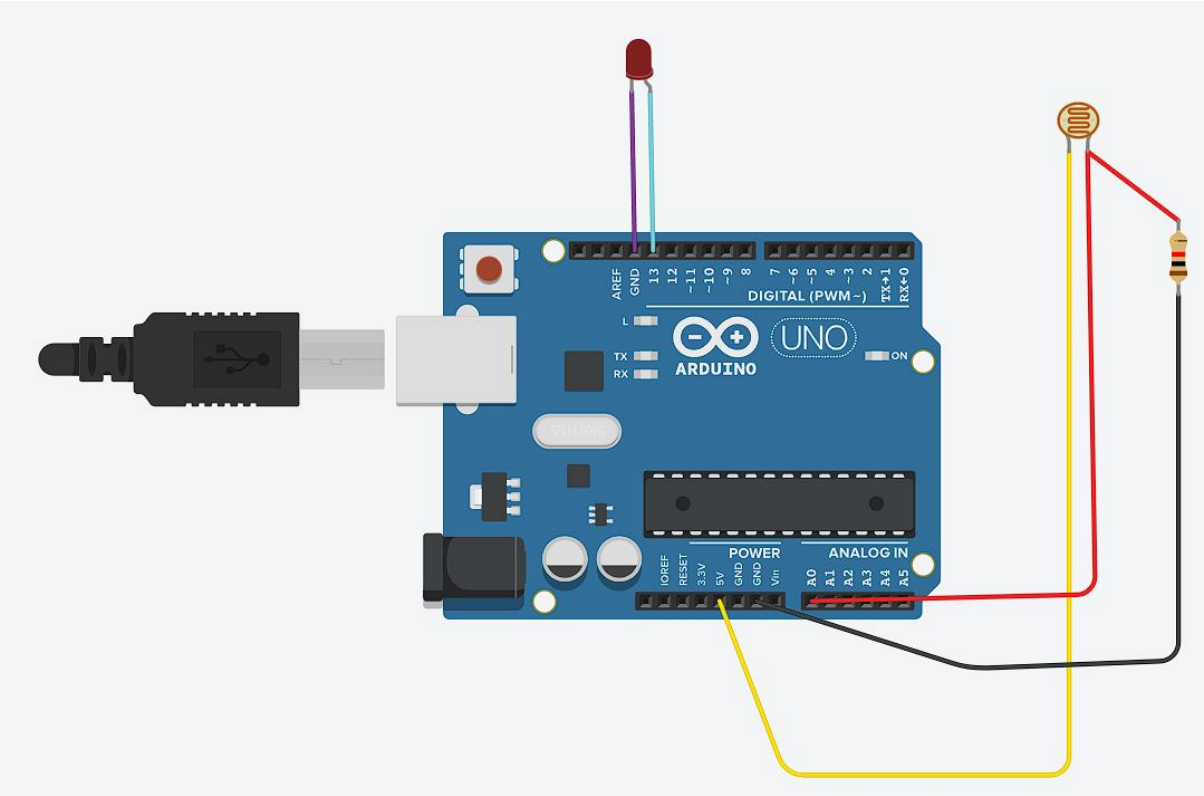
Light the led with python with 1 without a button using either uno raspberry pi




```
int led = 12;
void setup()
{
  pinMode(led, OUTPUT);
}
void loop()
{
  digitalWrite(led, HIGH);
  delay(200);
  digitalWrite(led, LOW);
  delay(200);
}
```

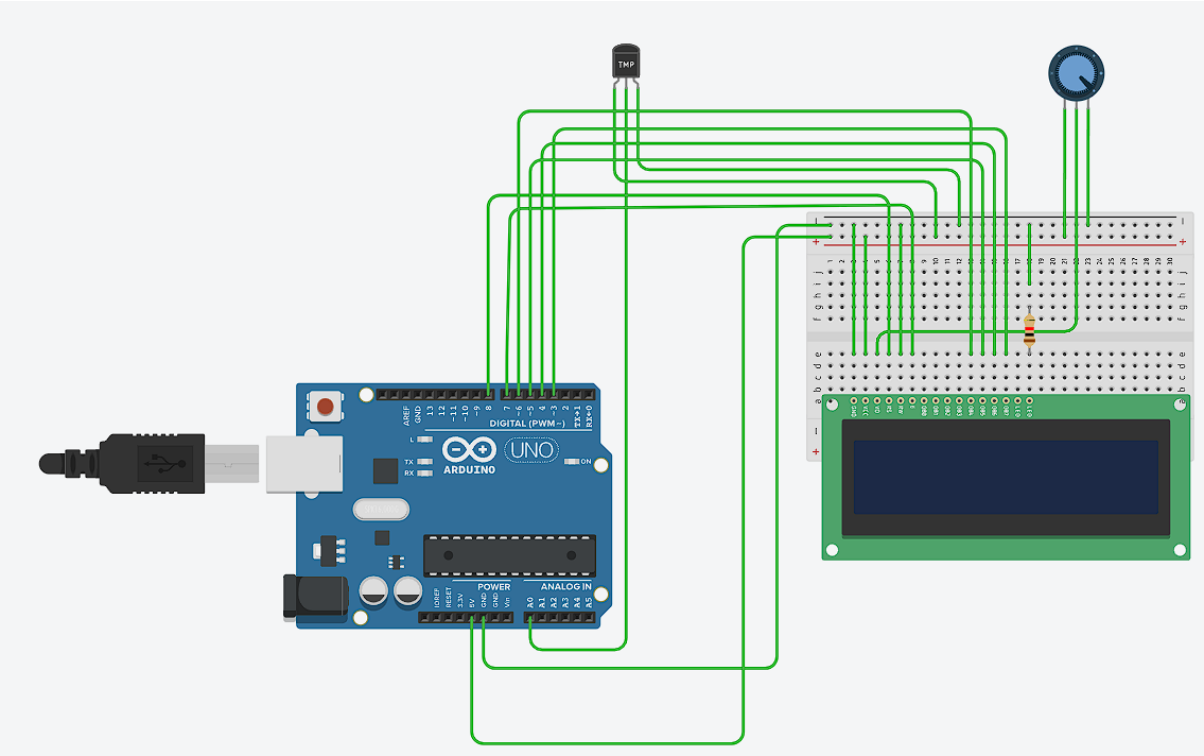
Camera connection and capturing images/ui design using pi




```
const int LEDPin = 13;
const int LDRPin= A0;
void setup(){
  Serial.begin(9600);
  pinMode( LEDPin, OUTPUT);
  pinMode( LDRPin, INPUT);
}
void loop(){
  int LDRStatus = analogRead(LDRPin);
  if(LDRStatus <= 500){
  digitalWrite(LEDPin,HIGH);
  Serial.print("Current Light Intensity Value -");
  Serial.println(LDRStatus);
  }
  else{
  digitalWrite(LEDPin, LOW);
```

```
  Serial.print("Current Light Intensity Value -");
  Serial.println(LDRStatus);
  }
}
```

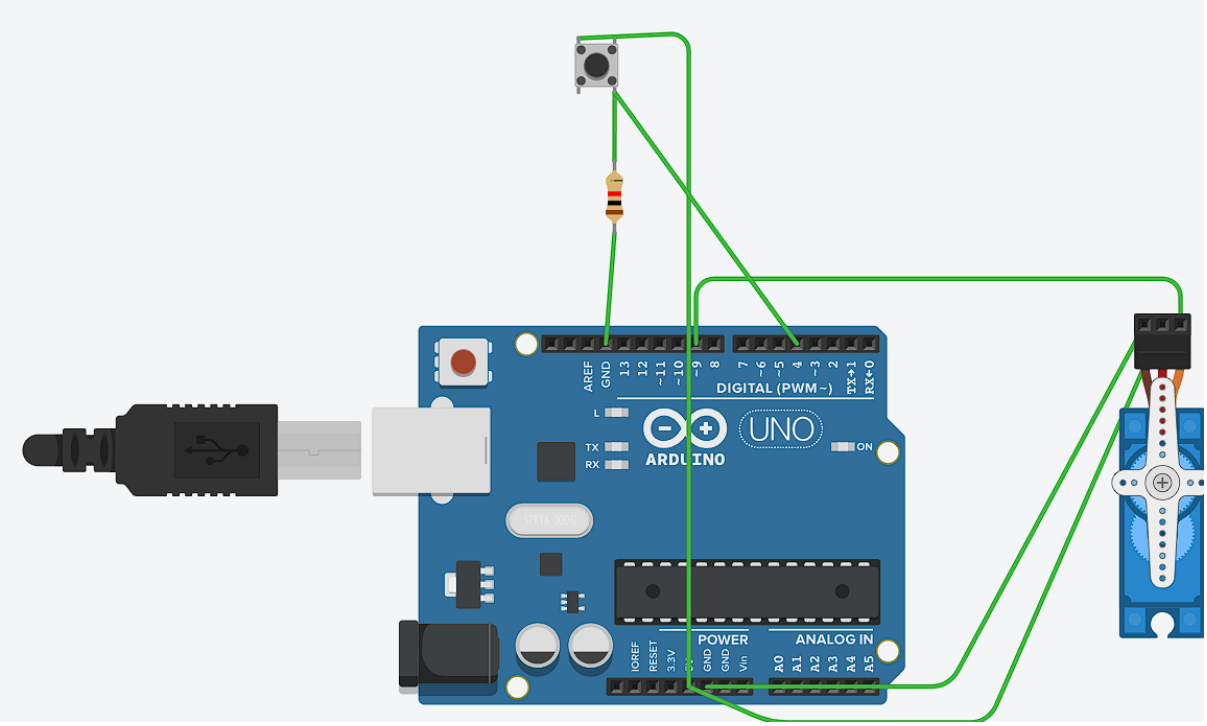
Use different types of sensors cldr, temperature, with raspberry pi/uno




```
#include "LiquidCrystal.h"
LiquidCrystal lcd(8,7,6,5,4,3);
const int sensorPin = 0;
void setup() {
  Serial.begin(9600);
  lcd.begin(16, 2);
}
void loop() {
  int reading = analogRead(sensorPin);
  float voltage = reading * 5.0 / 1024.0;
  float temperatureC = (voltage - 0.5) * 100;
  Serial.print("Temperature (C): ");
  Serial.println(temperatureC);
```

```
  lcd.setCursor(0, 0);
  lcd.print("Temp:");
  lcd.setCursor(0, 1);
  lcd.setCursor(11, 1);
  lcd.print(temperatureC);
  lcd.print(" C");
  delay(100);
}
```

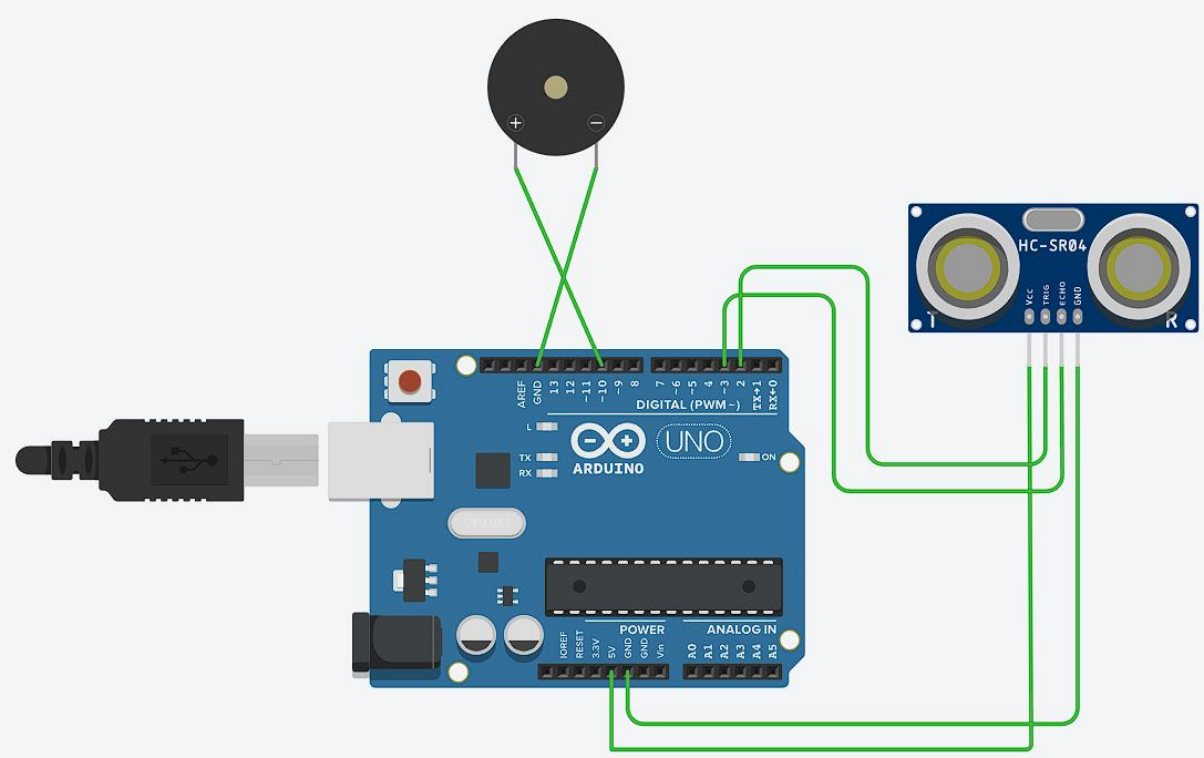
Program using servo motors




```
#include <Servo.h>
int push = 0;
Servo servo_8;
void setup() {
  pinMode(4, INPUT);
  Serial.begin(9600);
  servo_8.attach(9, 500, 2500);
}
void loop() {
```

```
  push = digitalRead(4);
  Serial.println(push);
  if (push == 1) {
    servo_8.write(180);
  } else {
    servo_8.write(0);
  }
  delay(10);
}
```

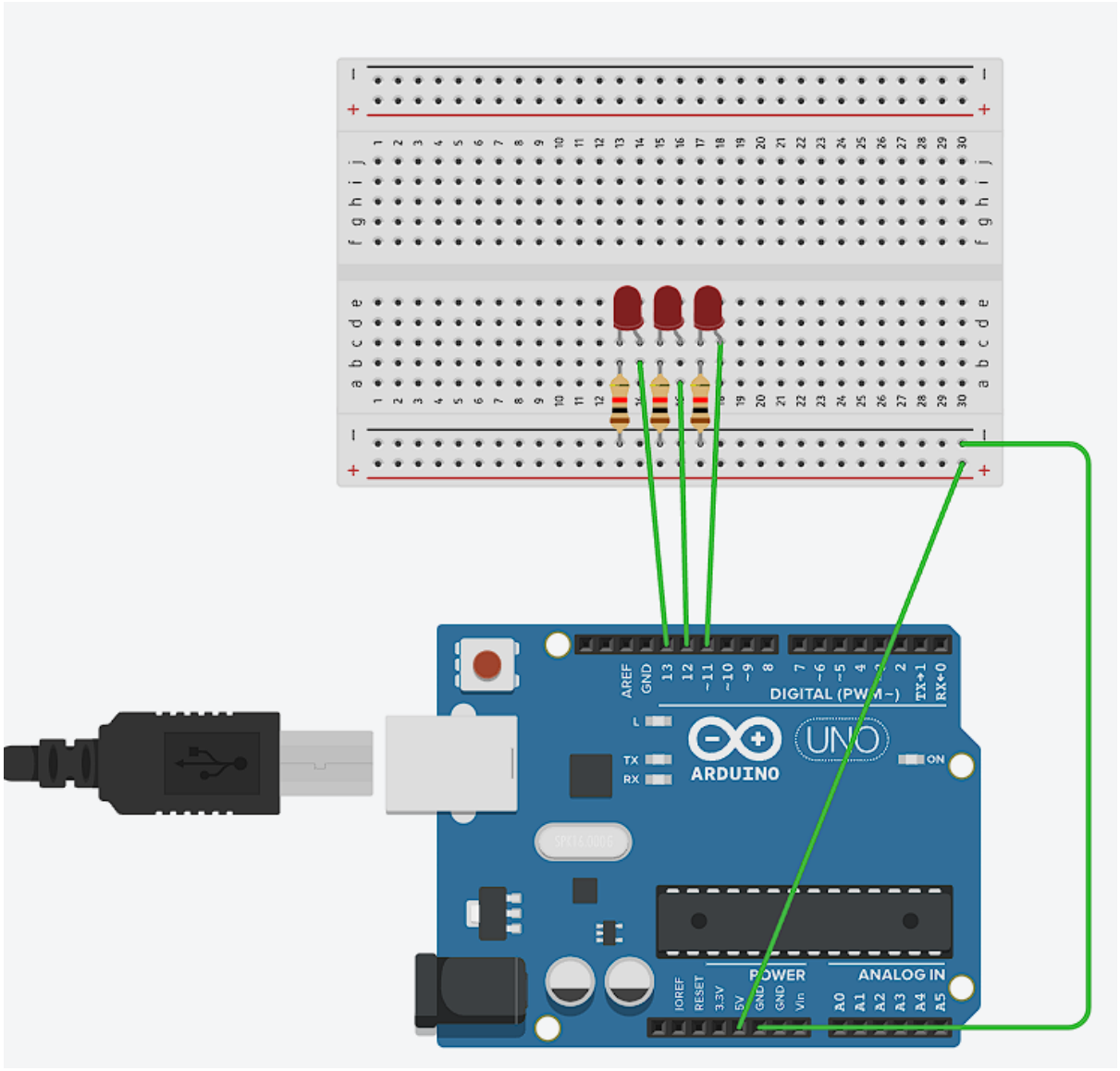
Node red: connect led to iot




```
int trigger_pin = 2;
int echo_pin = 3;
int buzzer_pin = 10;
int time;
int distance;

void setup() {
  Serial.begin(9600);
```

```
  pinMode(trigger_pin, OUTPUT);
  pinMode(echo_pin, INPUT);
  pinMode(buzzer_pin, OUTPUT);
}

void loop() {
  digitalWrite(trigger_pin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigger_pin, LOW);
  time = pulseIn(echo_pin, HIGH);
  distance = (time * 0.034) / 2;

  if (distance <= 10) {
    Serial.println("Door open");
    Serial.print("Distance: ");
    Serial.println(distance);
    digitalWrite(buzzer_pin, HIGH);
    delay(500);
  } else {
    Serial.println("Door Closed");
    Serial.print("Distance: ");
    Serial.println(distance);
    digitalWrite(buzzer_pin, LOW);
    delay(500);
  }
}
```

Use different types of censors with raspberry pi




```
int animationSpeed = 0;
void setup(){
  pinMode(13,OUTPUT);
  pinMode(12,OUTPUT);
  pinMode(11,OUTPUT);
}
void loop(){
  animationSpeed = 400;
  digitalWrite(13,HIGH);
  delay(animationSpeed);
  digitalWrite(13,LOW);
```

```
  delay(animationSpeed);
  digitalWrite(12,HIGH);
  delay(animationSpeed);
  digitalWrite(12,LOW);
  delay(animationSpeed);
  digitalWrite(11,HIGH);
  delay(animationSpeed);
  digitalWrite(11,LOW);
  delay(animationSpeed);
}
```