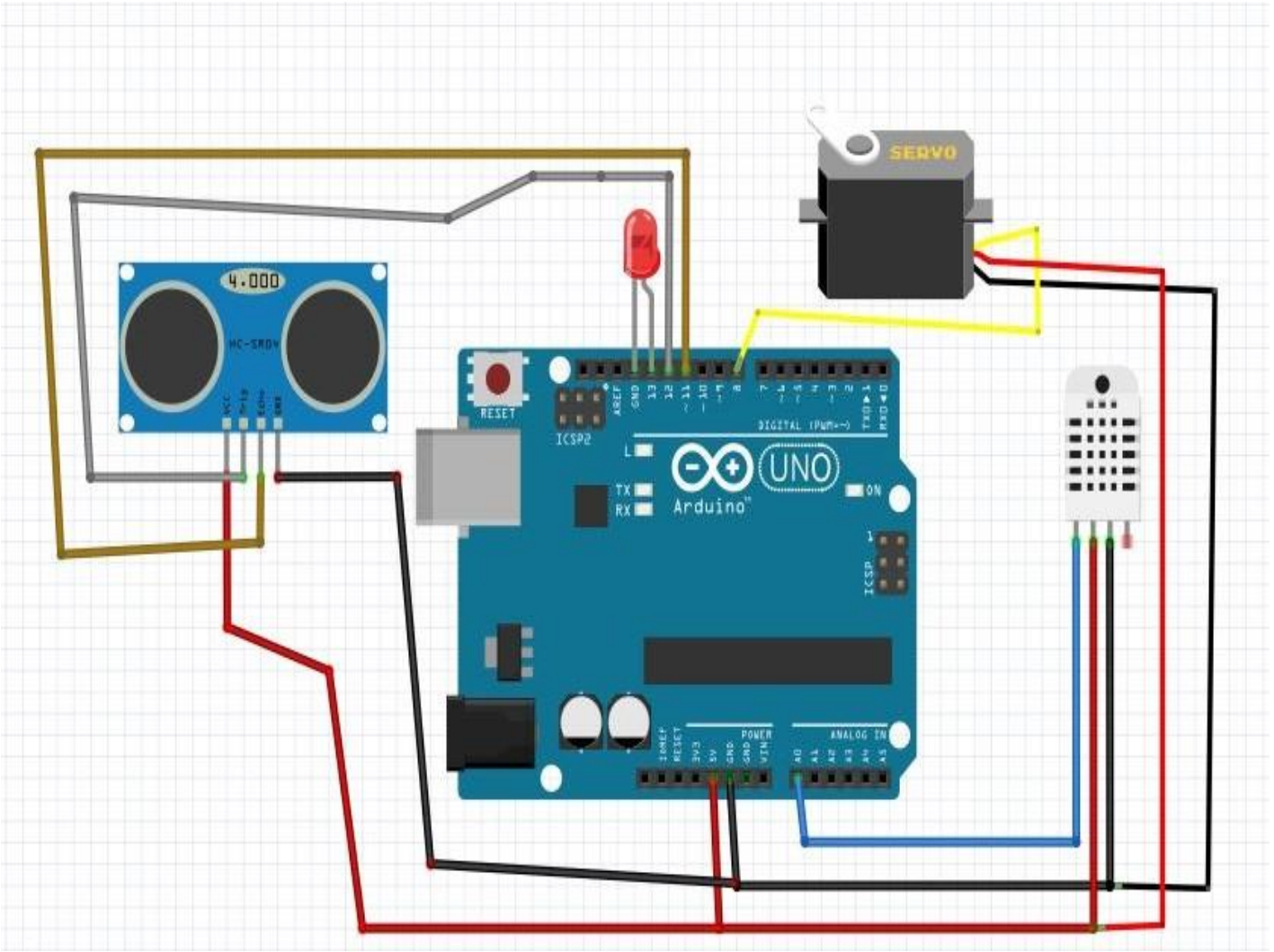
Project Smart Bin

Circuit Diagram



Code :

```
#include <Servo.h>
#include <dht.h>
#define dht_apin A1

dht DHT;
int trigpin=12;
int echopin=11;
Servo myservo;
int pos = 0;

void setup() {
myservo.attach(8);
Serial.begin(9600);
  pinMode(trigpin,OUTPUT);
  pinMode(echopin,INPUT);
  pinMode(LED_BUILTIN, OUTPUT);
  Serial.begin(9600);
  delay(500);
  Serial.println("DHT11 Humidity & temperature Sensor\n\n");
  delay(1000);

}

void loop() {
long duration,distance;
  digitalWrite(trigpin,HIGH);
  delay(500);
  digitalWrite(trigpin,LOW);
  duration=pulseIn(echopin,HIGH);
  distance=(duration/2)/29.1;
  Serial.print(distance);
  Serial.println("CM");
  delay(10);

  if((distance<=50))
  {
    for (pos = 0; pos <= 150; pos += 1)
    myservo.write(pos);
  }
  else
  {
    for (pos = 150; pos >= 0; pos -= 1)
    myservo.write(pos);
    }
```

```
    DHT.readl1(dht_apin);
    Serial.print("Current humidity = ");
    Serial.print(DHT.humidity);
    Serial.print("%  ");
    Serial.print("temperature = ");
    Serial.print(DHT.temperature);
    Serial.println("C  ");
    delay(500);

{    if(DHT.humidity<=62)
    {
       digitalWrite(LED_BUILTIN, HIGH);

    }
 else
 {
   digitalWrite(LED_BUILTIN, LOW);

 }

}
  }
```