IOT ASSIGNMENT-2

M.SAI VARSHITH

CODE:

```cpp
// C++ code
//
#include<Servo.h>
Servo s;
int t = 4;
int e = 5;
void setup()
{
  s.attach(3);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  Serial.begin(9600);
}
void loop()
{
 digitalWrite(t, LOW);
 digitalWrite(t, HIGH);
 delayMicroseconds(10);
 digitalWrite(t, LOW);
 float dur = pulseIn(e,HIGH);
```

```
  float dis  = (dur * 0.0343)/2; // convert m to cm
        Serial.print("distance in cm: ");
  Serial.println(dis);
if(dis <= 250)
{
 Serial.println("Door closed ");
 Serial.print(" Distance=  ");
 Serial.println (dis);
 delay(500);
 }
      else  {
 Serial.println("Door open ");
 Serial.print  (" Distance = ");
 Serial.println(dis);
 delay(100);
 }
 }
```
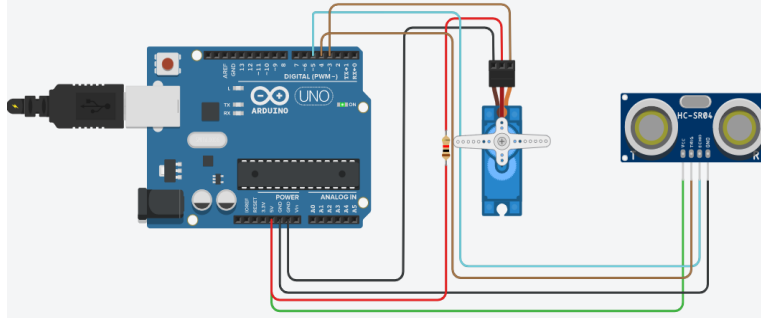
Funky Jofo

All changes saved

Simulator time: 00:01:26

Code | Stop Simulation | Export | Share

1 (Arduino Uno R3)


```
2  //
3  #include<Servo.h>
4  Servo s;
5  int t = 4;
6  int e = 5;
7  void setup()
8  {
9     s.attach(3);
10    pinMode(t,OUTPUT);
11    pinMode(e,INPUT);
12    Serial.begin(9600);
13  }
14  void loop()
15  {
16    digitalWrite(t, LOW);
17    digitalWrite(t, HIGH);
18    delayMicroseconds(10);
19    digitalWrite(t, LOW);
20    float dur = pulseIn(e,HIGH);
21    float dis  = (dur * 0.0343)/2; // convert m to cm
22          Serial.print("distance in cm: ");
23    Serial.println(dis);
24  if(dis <= 250)
25      {
26      Serial.println("Door closed ");
27      Serial.print(" Distance=   ");
28      Serial.println (dis);
29      delay(500);
30      }
31        else  {
32      Serial.println("Door open ");
33      Serial.print  (" Distance = ");
34      Serial.println(dis);
35      delay(100);
36      }
37  }
```

Serial Monitor

Screenshot of a Tinkercad circuit design titled "Funky Jofo" showing an Arduino Uno connected to a servo motor and an HC-SR04 ultrasonic sensor, with the following code:

```cpp
// C++ code
//
#include<Servo.h>
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void setup()
{
    s.attach(3);
    pinMode(t,OUTPUT);
    pinMode(e,INPUT);
    Serial.begin(9600);
}
void loop()
{
    digitalWrite(t, LOW);
    digitalWrite(t, HIGH);
    delayMicroseconds(10);
    digitalWrite(t, LOW);
    float dur = pulseIn(e,HIGH);
    float dis  = (dur * 0.0343)/2; // convert m to cm
        Serial.print("distance in cm: ");
    Serial.println(dis);
    if(dis <= 250)
    {
```

Serial Monitor output:

```
Door closed
 Distance= 113.07
distance in cm: 111.53
Door closed
 Distance=  111.53
distance in cm: 113.07
Door closed
 Distance=  113.07
```