V.S.B. ENGINEERING COLLEGE, KARUR

Department of Electronics and Communication Engineering

DOMAIN NAME : Internet of Things

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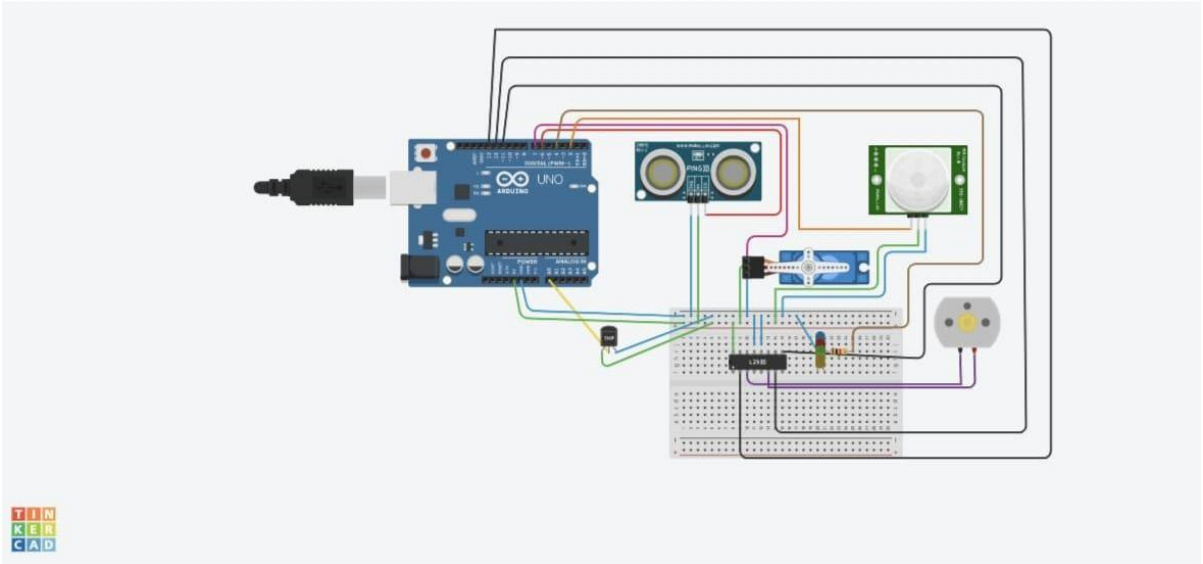
Coding :

```
#include<Servo.h>
int us = 6;
int servo = 7;

Servo servo1;

void setup() {
  Serial.begin(9600);
  servo1.attach(servo);
  pinMode(2,INPUT);
  pinMode(4,OUTPUT);
  pinMode(11,OUTPUT);
  pinMode(12,OUTPUT);
  pinMode(13,OUTPUT);
  pinMode(A0,INPUT);
```

```
  digitalWrite(2,LOW);
  digitalWrite(11,HIGH);

}

void loop() {

  long duration, inches, cm;

  pinMode(us, OUTPUT);
  digitalWrite(us, LOW);
  delayMicroseconds(2);
  digitalWrite(us, HIGH);
  delayMicroseconds(5);
  digitalWrite(us, LOW);


  pinMode(us, INPUT);
  duration = pulseIn(us, HIGH);


  inches = microsecondsToInches(duration);
  cm = microsecondsToCentimeters(duration);



  servo1.write(0);

  if(cm < 30)
  {
    servo1.write(120);
```

```
  Serial.println("A Person Arrived, Door is Opening..... ");
  delay(2000);
}
else
{
  servo1.write(0);
  Serial.println("Door is Closed. ...");
}


int pir = digitalRead(2);

if(pir == HIGH)
{
  digitalWrite(4,HIGH);
  delay(3000);
}
else if(pir == LOW)
{
  digitalWrite(4,LOW);
}

float value=analogRead(A0);
float temp=(((value/1024)*5.0199)-0.5)*100;



Serial.print("temp is ");
Serial.println(temp);
delay(3000);
if(temp > 20)
{
```

```
   digitalWrite(12,HIGH);
   digitalWrite(13,LOW);
  }
  else
  {
   digitalWrite(12,LOW);
   digitalWrite(13,LOW);
  }
}
long microsecondsToInches(long microseconds) {
  return microseconds / 74 / 2;
}

long microsecondsToCentimeters(long microseconds) {
  return microseconds / 29 / 2;
}
```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