```
char degree = 176;
int trigger_pin = 2;
int echo_pin = 3;
int buzzer_pin = 10;
int time;
int distance;
int pinTemp = A0;
int motor = 13;
int motorspeed = 17550;
void setup()
{
        Serial.begin (9600);
        pinMode (trigger_pin, OUTPUT);
        pinMode (echo_pin, INPUT);
        pinMode (buzzer_pin, OUTPUT);
        pinMode (motor, OUTPUT);
        pinMode (pinTemp, INPUT);
        pinMode (11, OUTPUT);
        pinMode (9,     OUTPUT);
        digitalWrite(motor, HIGH);
}
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 Close ");
                        Serial.print (" Distance= ");
                        Serial.println(distance);
                        digitalWrite (buzzer_pin, LOW);
                        delay (500);
                }
        float tmp = analogRead(A0);
  float voltage = (tmp * 5.0)/1024;
  float milliVolt = voltage * 1000;
  float tmpCel =  (milliVolt-500)/10;
  if(tmpCel > 20){
    digitalWrite(11, HIGH);
        digitalWrite(9, LOW);
    Serial.print(" Temperature: ");
    Serial.print(tmpCel);
    Serial.println(degree);
    Serial.println(" Fan is ON now");
    delay(500);
  }else{
    digitalWrite(11, LOW);
```

```
            digitalWrite(9, LOW);
    Serial.print(" Temperature: ");
    Serial.print(tmpCel);
    Serial.println(degree);
    Serial.println(" Fan is Off now");
    delay(500);
  }
}
```