

## ASSIGNMENT 1

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Project Name	SmartFarmer – IoT Enabled Smart Farming Application
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### QUESTION

Make a smart home with 2-3 sensors, LED, Buzzer, in single code and connections. submit it in the platform, any doubts ask in chat with mentor option

### CODE

```
void setup()
{
  pinMode(13, OUTPUT); //led
  pinMode(2, OUTPUT); //buzzer
  pinMode(3, OUTPUT); //trigger
  pinMode(4, INPUT); //echo
  pinMode(5, INPUT); //pir
  pinMode(A5, INPUT); //temp
  Serial.begin(9600);
}

void loop()
{
  double a = analogRead(A5);
  double c = (((a/1024)*5)-0.5)*100;
  int pirdude = digitalRead(5);
  digitalWrite(3, LOW);
  digitalWrite(3, HIGH);
  delay(10);
  digitalWrite(3, LOW);
  float dur = pulseIn(4, HIGH);
  float dis = (dur*0.0343)/2;
  int b = digitalRead(5);
  Serial.print(c);
  Serial.print(" C, ");
  Serial.print(dis);
  Serial.print(" dist, ");
  Serial.print(b);
  Serial.print(" pir, ");
  if (dis < 200) {
    digitalWrite(13, HIGH);
    delay(2000);
    digitalWrite(13, LOW);
  }

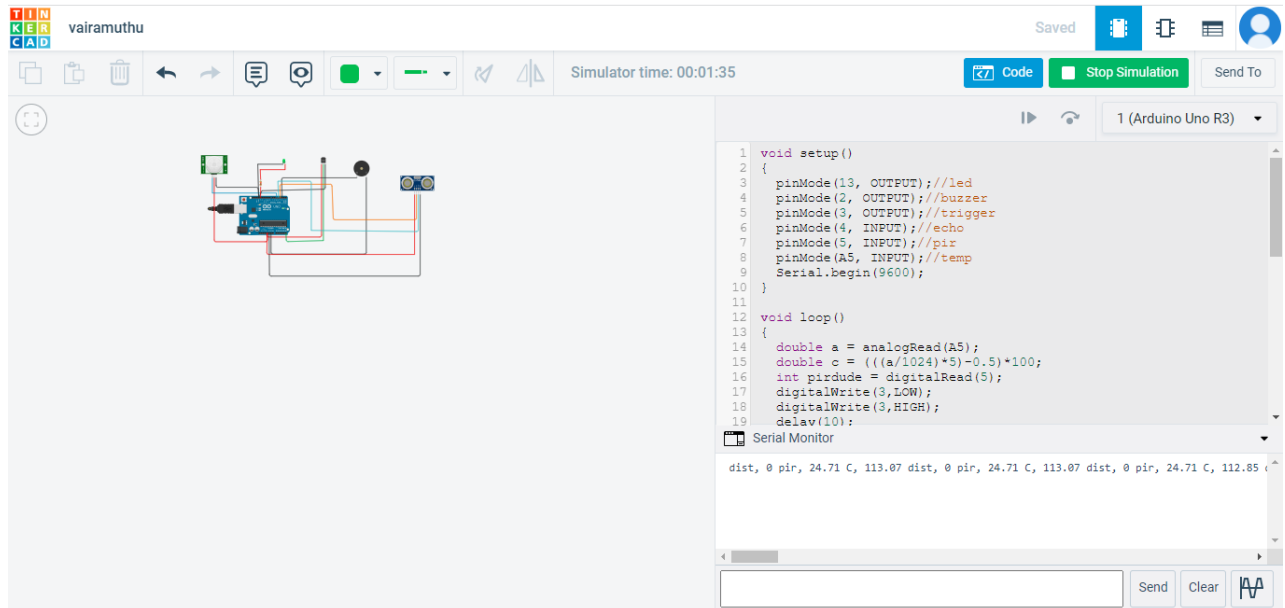
  if (c > 34.00) {
    digitalWrite(2, HIGH);
```

```

    delay(2000);
    digitalWrite(2,LOW);
  }
  if (a==HIGH){
    digitalWrite(2,HIGH);
    delay(3000);
    digitalWrite(2,LOW);
  }
}

```

## OUTPUT



The screenshot shows the Arduino IDE interface with a circuit simulation on the left and the code editor on the right. The circuit includes an Arduino Uno R3, a breadboard, and various components like resistors and LEDs. The code editor displays the following code:

```

1 void setup()
2 {
3   pinMode(13, OUTPUT); //led
4   pinMode(2, OUTPUT); //buzzer
5   pinMode(3, OUTPUT); //trigger
6   pinMode(4, INPUT); //echo
7   pinMode(5, INPUT); //pir
8   pinMode(A5, INPUT); //temp
9   Serial.begin(9600);
10 }
11
12 void loop()
13 {
14   double a = analogRead(A5);
15   double c = ((a/1024)*5)-0.5*100;
16   int pirdude = digitalRead(5);
17   digitalWrite(3,LOW);
18   digitalWrite(3,HIGH);
19   delay(10);

```

Below the code editor, the Serial Monitor window is open, displaying the following output:

```

dist, 0 pir, 24.71 C, 113.07 dist, 0 pir, 24.71 C, 113.07 dist, 0 pir, 24.71 C, 112.85

```