

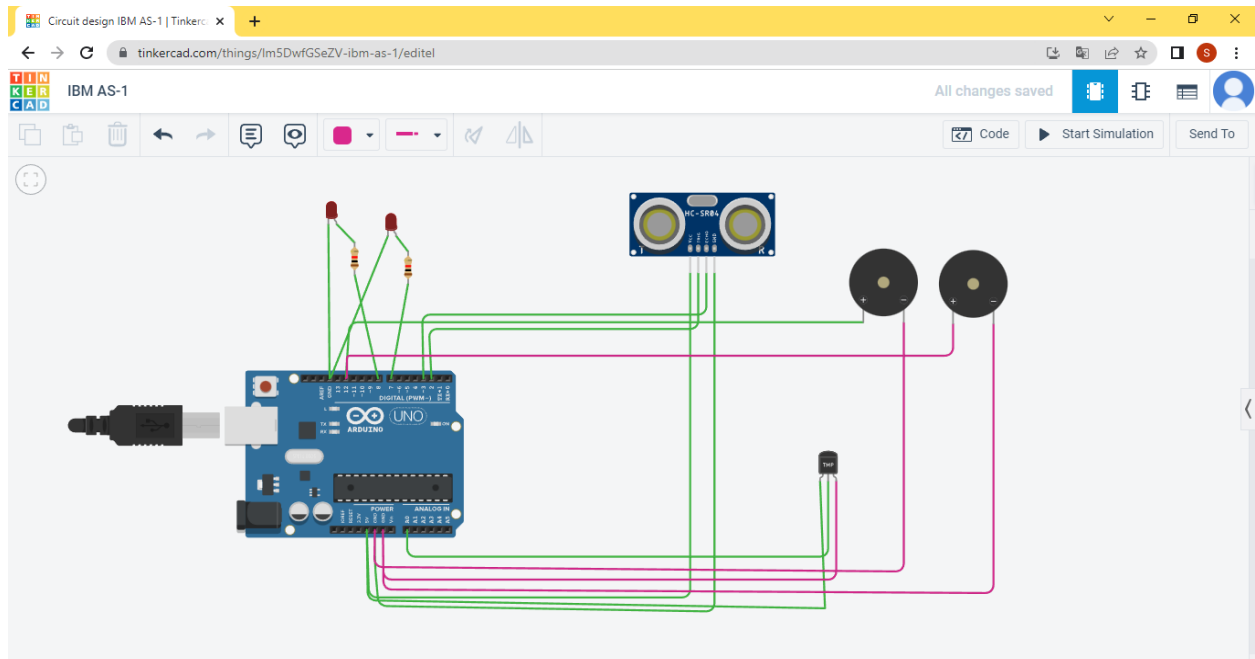
ASSIGNMENT-1

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TEAM ID:	PNT2022TMID44437
PROJECT NAME:	SmartFarmer-IOT Enabled Smart Farming Application

ASSIGNMENT-1 TITLE:

Make a smart Home in Tinkercad, Using 2 sensors, LED, Buzzer in single code and circuit

CIRCUIT:



PROGRAM:

```
int t=2;

int e=3;


void setup(){
  Serial.begin(9600);
  pinMode(e,OUTPUT);
  pinMode(e,INPUT);
  pinMode(12,OUTPUT);
}void loop(){
  digitalWrite(t,LOW);
  digitalWrite(t,HIGH);
  delayMicroseconds(20);
  digitalWrite(t,LOW);
  float dur=(e,HIGH);
  float dis=(dur*0.0343)/2;
  Serial.print("Distanceis");
  Serial.println('dis');
  if(dis>=100){
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
  }
  if(dis>=100)
  {
```

```
for(int i=0;i<=30000;i=i+10)

{

tone(12,1);

delay(1000);

noTone(12);

delay(1000);

}

}

double a=analogRead(A0);

double t=((a/1024)*5)-0.5)*100;

Serial.print("Temp Value");

Serial.println(t);

delay(1000);

if(t>=100){

digitalWrite(8,HIGH);

digitalWrite(7,HIGH);

}

if(t=100);

{

for(int i=0;i<3000;i=i+10)

{

tone(12,i);

delay(1000);

noTone(12);

delay(1000);
```

```

}

}

if(t<100)

{

digitalWrite(8,LOW);

digitalWrite(7,LOW);

}

}

```

OUTPUT:

The screenshot shows the Tinkercad web interface for a circuit design. The circuit includes an Arduino Uno R3, an HC-SR04 ultrasonic sensor, and two LEDs. The sensor's VCC is connected to the 5V pin, GND to the GND pin, and the Trig pin to digital pin 12. The Echo pin is connected to digital pin 8. The two LEDs are connected to digital pins 7 and 8. The code editor on the right contains the following C++ code:

```

1 int t=2;
2 int e=3;
3
4 void setup(){
5   Serial.begin(9600);
6   pinMode(e,OUTPUT);
7   pinMode(e,INPUT);
8   pinMode(12,OUTPUT);
9 }
10 void loop(){
11   digitalWrite(t,LOW);
12   digitalWrite(t,HIGH);
13   delayMicroseconds(20);
14   digitalWrite(t,LOW);
15   float dur=(e,HIGH);
16   float dis=(dur*0.0343)/2;
17   Serial.print("Distance is");
18   Serial.println('dis');
19   if(dis>100){
20     digitalWrite(8,HIGH);
21     digitalWrite(7,HIGH);
22   }
23   if(dis>=100)
24   {
25     for(int i=0;i<=30000;i=i+10)
26     {
27       tone(12,1);
28       delay(1000);
29       noTone(12);
30       delay(1000);
31     }
32   }

```

