**Assignment-1**

**Smart home circuit connection in Tinker Card**

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| Assignment Date | 20September 2022 |
| Student Name | E.Abini Breen |
| Student Roll Number | 960219106006 |
| Maximum Marks | 2 Marks |

**Question:**

**Make a smart home in Tinkercard, using 2+ sensors , LED , Buzzer in single code and circuit.**

**SOLUTION:**

int t=2;

int e=3;

void setup()

{

Serial.begin(9600);

pinMode(t,OUTPUT);

pinMode(e,INPUT);

pinMode(12,OUTPUT);

}

void loop()

{

//ultrasonic sensor

digitalWrite(t,LOW);

digitalWrite(t,HIGH);

delayMicroseconds(10);

digitalWrite(t,LOW);

float dur=pulseIn(e,HIGH);

float dis=(dur\*0.0343)/2;

Serial.print("Distance is: ");

Serial.println(dis);

//LED ON

if(dis>=100)

{

digitalWrite(8,HIGH);

digitalWrite(7,HIGH);

}

//Buzzer For ultrasonic Sensor

if(dis>=100)

{

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

{

tone(12,i);

delay(1000);

noTone(12);

delay(1000);

}

}

//Temperate Sensor

double a= analogRead(A0);

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

Serial.print("Temp Value: ");

Serial.println(t);

delay(1000);

//LED ON

if(t>=100)

{

digitalWrite(8,HIGH);

digitalWrite(7,HIGH);

}

//Buzzer for Temperature Sensor

if(t>=100)

{

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

{

tone(12,i);

delay(1000);

noTone(12);

delay(1000);

}

}

//LED OFF

if(t<100)

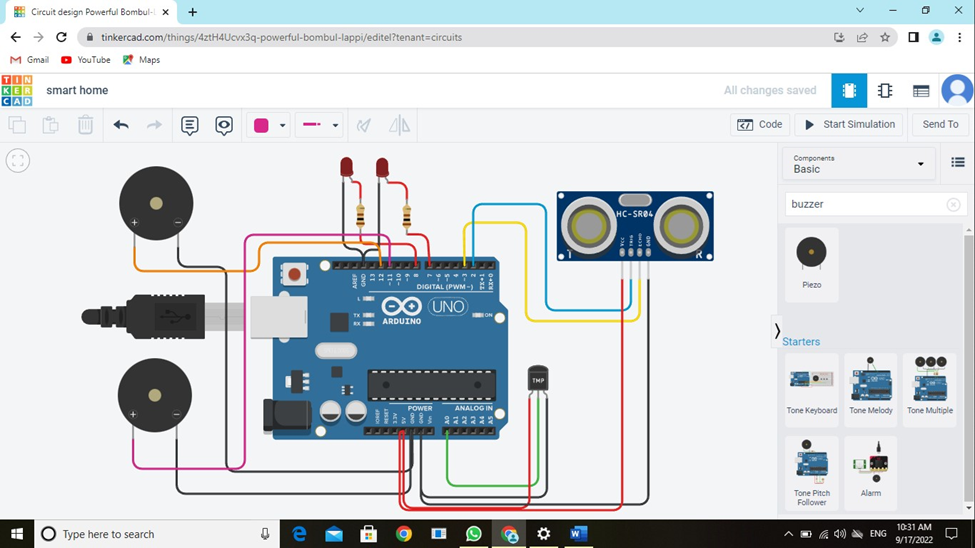
{

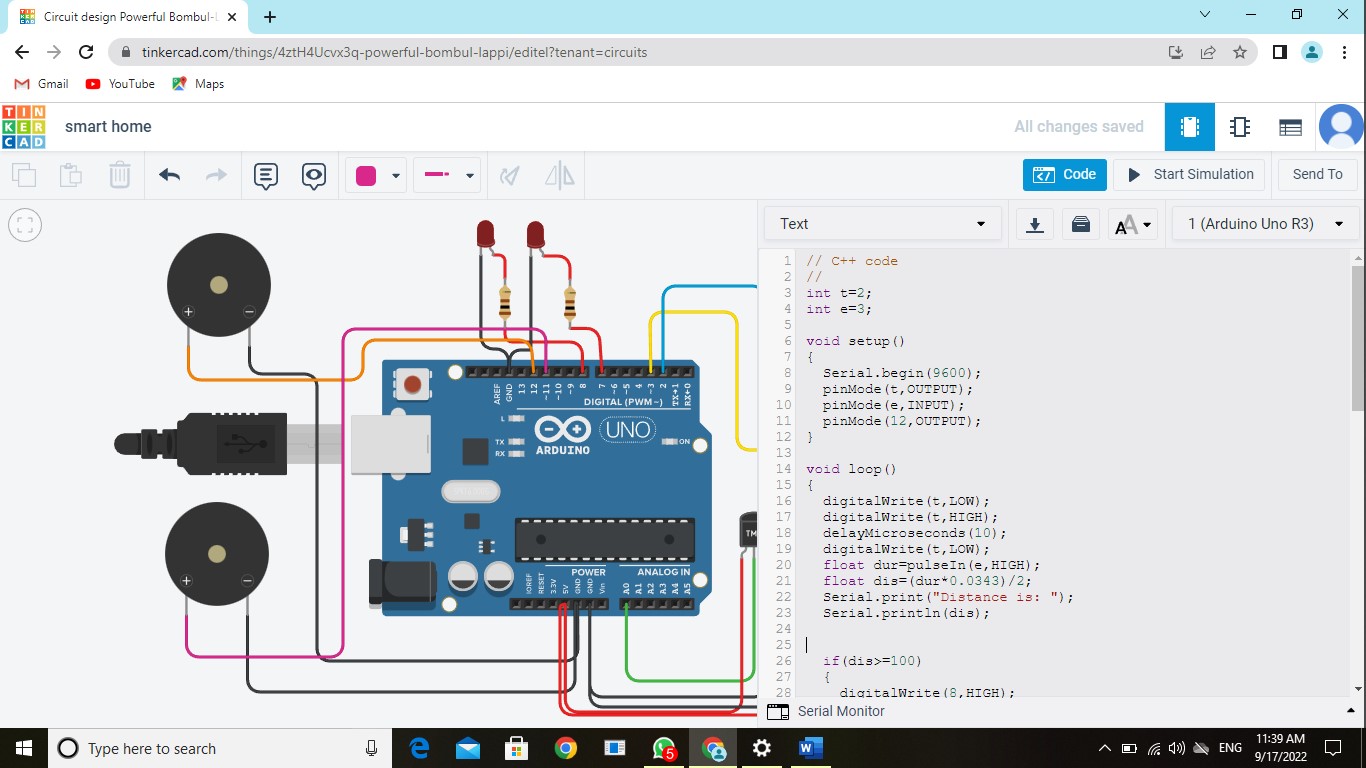
digitalWrite(8,LOW);

digitalWrite(7,LOW);

}

}





Tinkercad link:

https://www .tinkercad.com/things/4ztH4Ucvx3q-smart-home