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Question:

Build a smart home in Thinkercad with 2 sensors, an Led, buzzer and submit it.

Program:

```
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);

 }

}
```

Output: