Assignment -1
Smart Home

Date	29 September 2022
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Maximum Marks	2 Marks

Question-1:

Build a smart home in Tinker cad with 2 sensors, an Led, buzzer and submit it

Code :

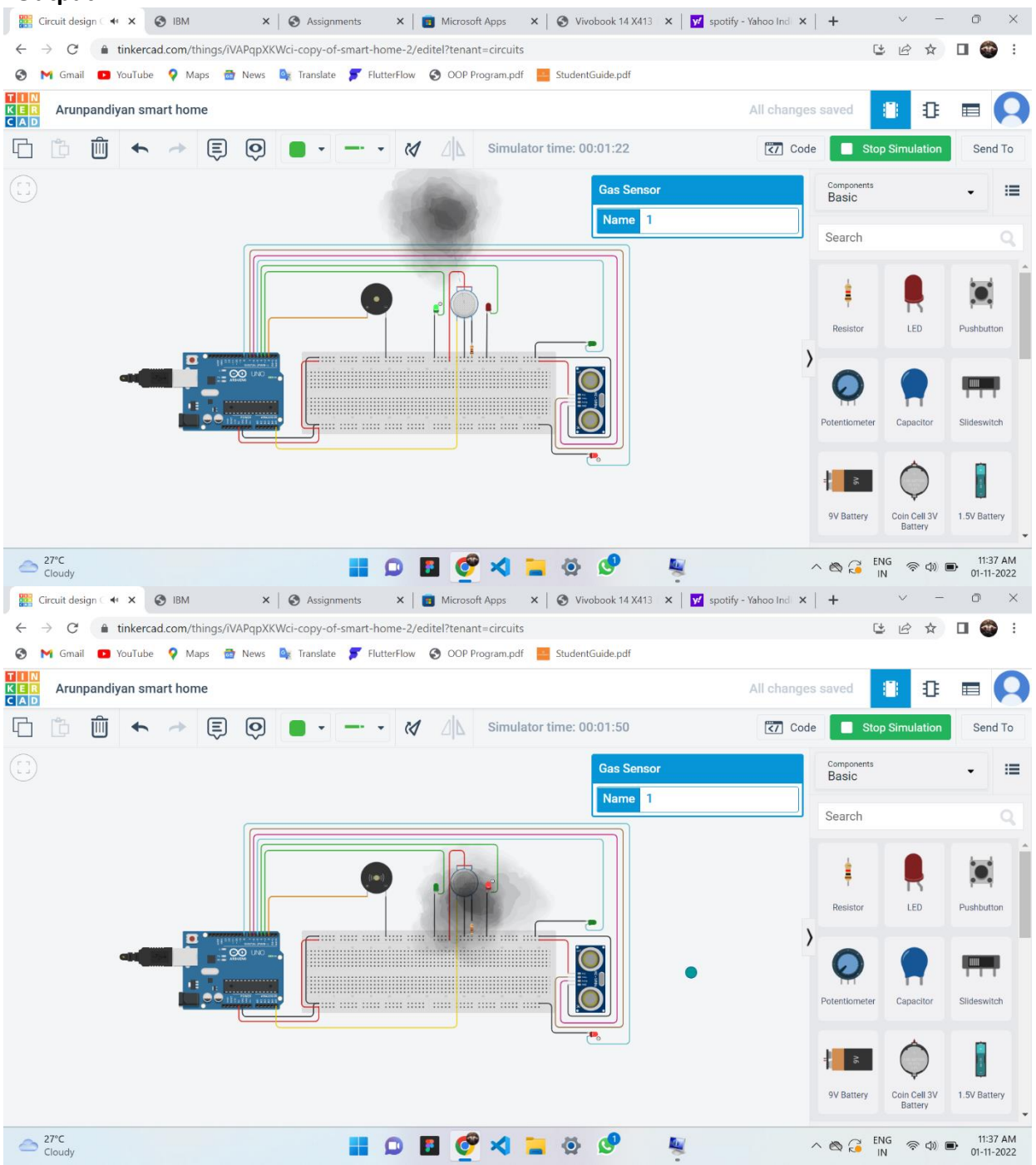
```
int diods = 13;
int pin = A0;
int value;

int red = 10;
int yellow = 11;
int green = 12;
int echo = 2;
int trigger = 3;

int const Pin_Gas = A1;
int green1 = 7;
int yellow1 = 6;
int red1 = 5;

void setup()
{
  pinMode(diods, OUTPUT);
  pinMode(pin, INPUT);

  pinMode(red, OUTPUT);
  pinMode(yellow, OUTPUT);
  pinMode(green, OUTPUT);
```

```
 pinMode(trigger, OUTPUT);
 pinMode(echo, INPUT);

 pinMode(green1, OUTPUT);
 pinMode(yellow1, OUTPUT);
 pinMode(red1, OUTPUT);

 Serial.begin(9600);
}

void loop()
{
 //Lamp
 value = analogRead(pin);
 analogWrite(diods, map(value, 1023, 0, 0, 255));

 //Distance sensor
 digitalWrite(trigger, LOW);
 delayMicroseconds(2);
 digitalWrite(trigger, HIGH);
 delayMicroseconds(10);
 digitalWrite(trigger, LOW);

 long duration = pulseIn(echo, HIGH);
 long distance = (duration / 5) / 29.1;


 if(distance < 50 && distance >= 20)
 {
  digitalWrite(green, HIGH);
  digitalWrite(yellow, LOW);
  digitalWrite(red, LOW);
 }
```

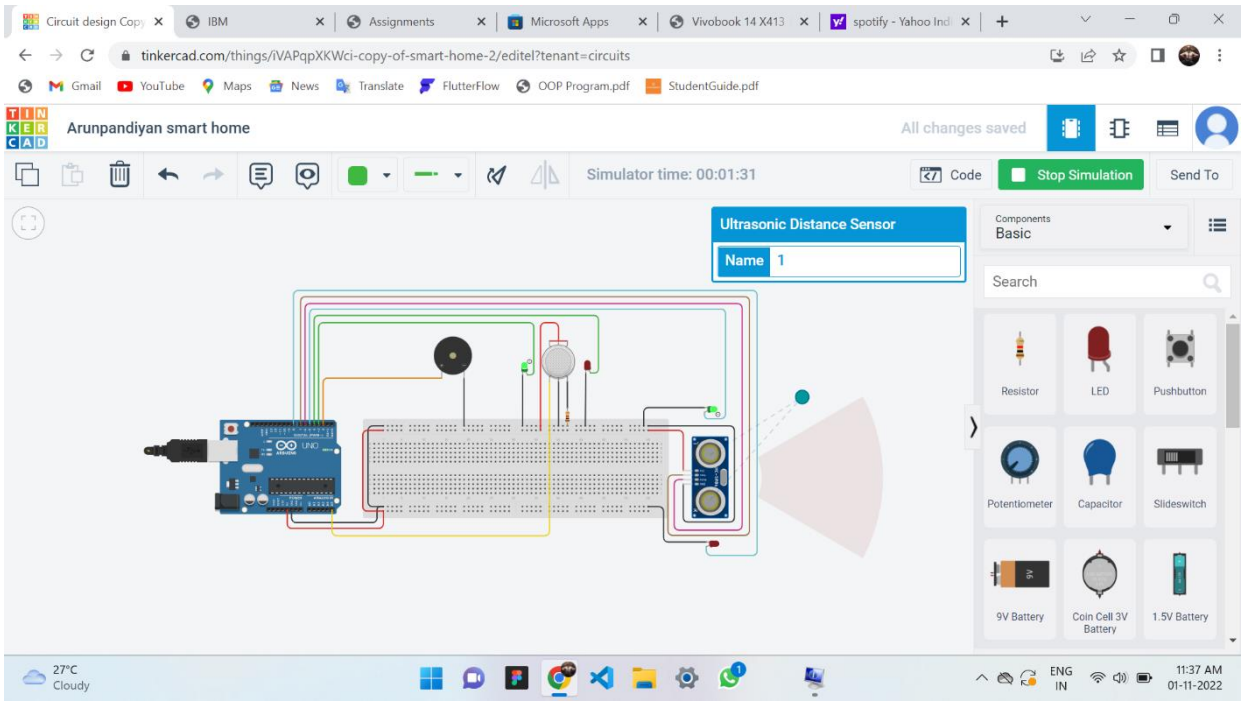
```
if(distance < 20 && distance >= 5)
{
  digitalWrite(green, LOW);
  digitalWrite(yellow, HIGH);
  digitalWrite(red, LOW);
}
if(distance < 5)
{
  digitalWrite(green, LOW);
  digitalWrite(yellow, LOW);
  digitalWrite(red, HIGH);
}

//Smoke Detector
int input = analogRead(Pin_Gas);
input = map(input, 300, 750, 0, 100);

if(input < 30)
{
  digitalWrite(green1, HIGH);
  digitalWrite(yellow1, LOW);
  digitalWrite(red1, LOW);
}
if(input >= 30 && input < 50)
{
  digitalWrite(yellow1, HIGH);
  digitalWrite(red1, LOW);
  digitalWrite(green1, LOW);
}
if(input >= 80)
{
  digitalWrite(yellow1, LOW);
  digitalWrite(red1, HIGH);
```

```
    digitalWrite(green1, LOW);
  }


  delay(150);
}
```

Output:



v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Capacitor
Slideswitch
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Coin Cell 3V Battery
1.5V Battery
27°C
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