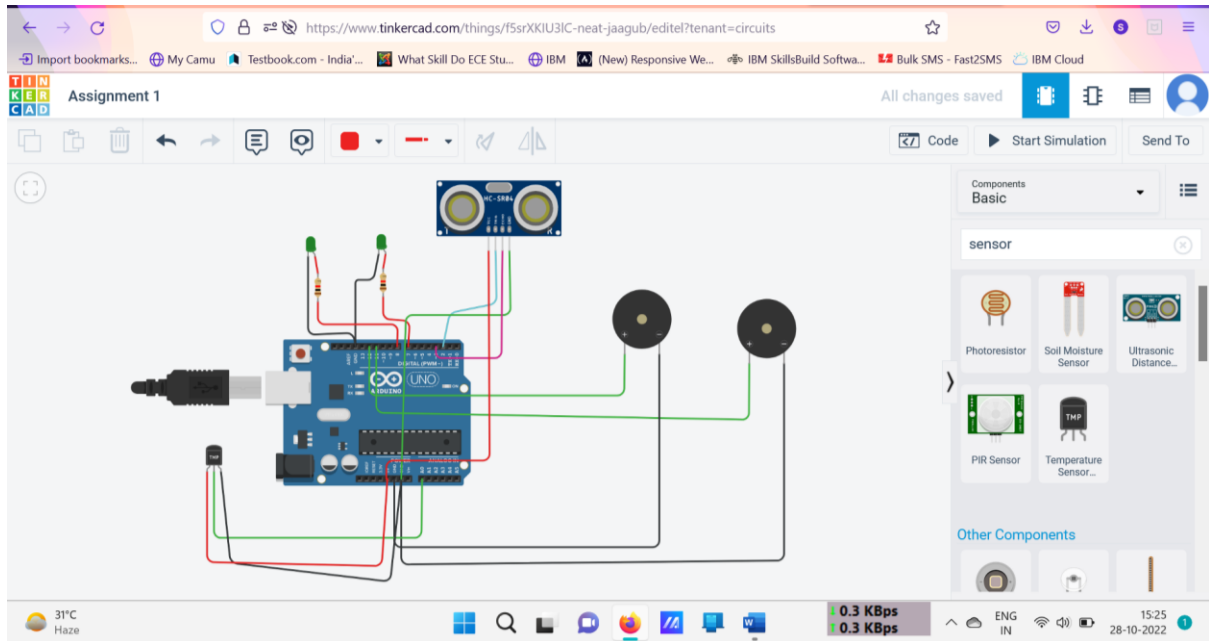


TEAM ID : PNT2022TMID45189

Assignment 1

Build a smart home in Thinkercad with 2 sensors, an Led, buzzer

Circuit :



Code :

```
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>=60)//(in terms of centimeter)
  {
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
  }

  //Buzzer For ultrasonic Sensor  if(dis>=60)
  {
    for(int i=0; i<=5; i=i+1)
    {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);
```

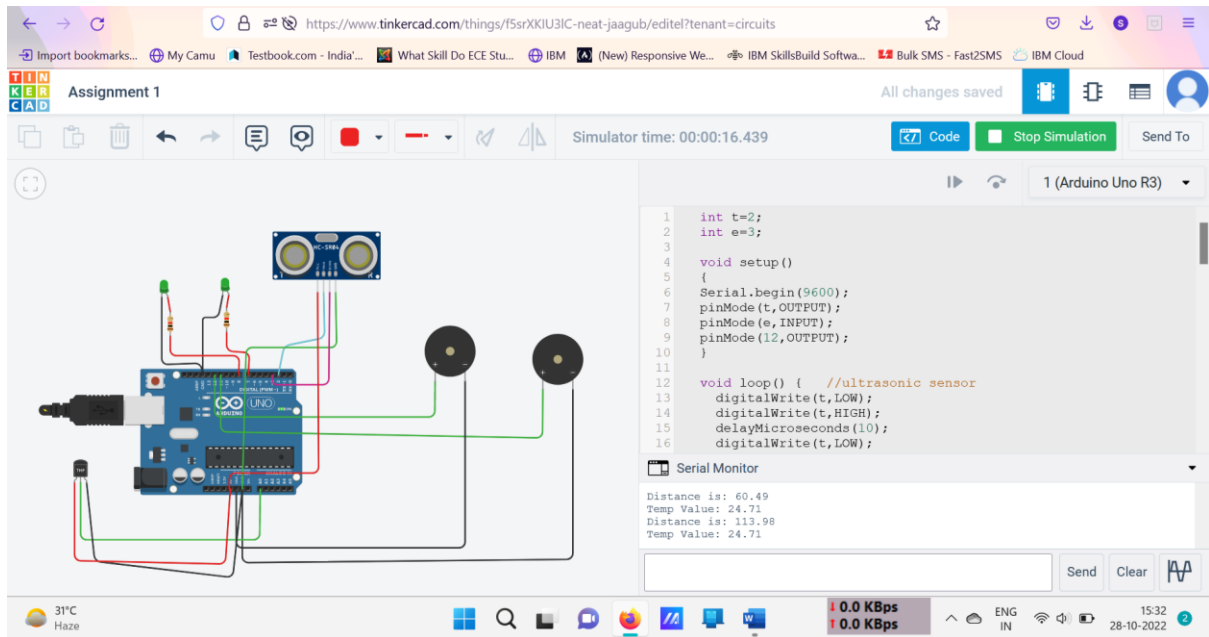
```
//LED ON
if(t>=20)//(in terms of celsius)
{
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
}
```

```
//Buzzer for Temperature Sensor
if(t>=20)
{
    for(int i=0; i<=5; i=i+1)
    {tone(12,i);
      delay(1000);
      noTone(12);
      delay(1000);
    }
}
```

```
//LED OFF
if(t<20)
{
```

```
digitalWrite(8,LOW);  
digitalWrite(7,LOW);  
}  
}
```

Output :



Link:

<https://www.tinkercad.com/things/f5srXKIU3IC>