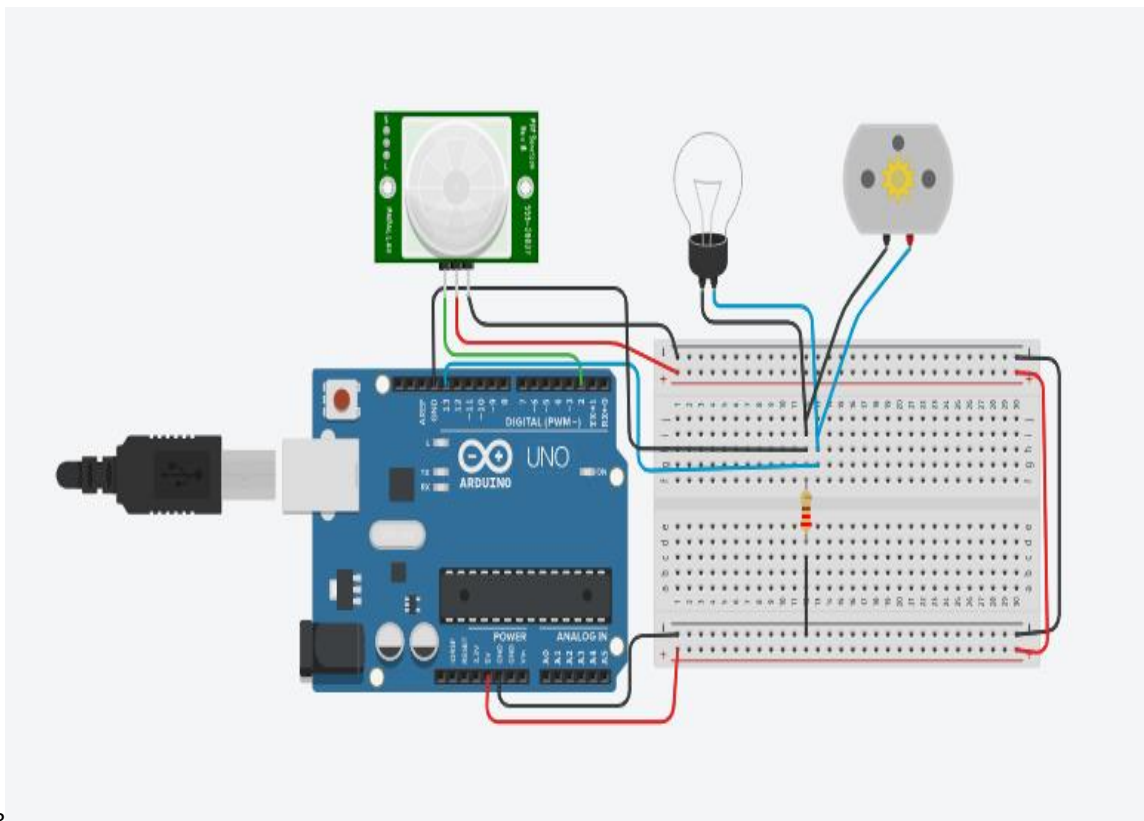


Assignment 1 :

Build a Smart home in thinker card with at least two sensors and led, buzzer

Circuit diagram :



KER

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>=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);  
}  
}
```

