

Assignment -1

Assignment Date	12 September 2022
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Maximum Marks	2 Marks

Question-1:

Write code for home automation using Arduino in Tinkercad.

Solution:

```
int t=2;
int e=3;
void setup()
{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(13,OUTPUT);
  pinMode(8,OUTPUT);
}
void loop()
{
  int p=digitalRead(4);
  Serial.println(p);
  if(p)
  {

digitalWrite(13,HIGH);

Serial.println("motion
detected and led
on!!");
  }
  else

digitalWrite(13,LOW);
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 :
");
Serial.println(dis);
Serial.println(" cm");
if(dis<100)
  digitalWrite(8,HIGH);
else
  digitalWrite(8,LOW);
}

```

