

Assignment -1
ARDUINO Programming

Assignment Date	9 September 2022
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Maximum Marks	2 Marks

Question-1:

Make smart home with atleast 2 sensors and led buzzer in thinkercad.

Solution:

CODE (ARDUINO) :

```
const int led1=6,led2=5,led3=4;
const int pir=2,tilt=12,buzzer=3,r=11,g=10,b=9;
const int temp=A0;
int carry,i,j,k;
void setup()
{
  pinMode(led1,OUTPUT);
  pinMode(led2,OUTPUT);
  pinMode(led3,OUTPUT);
  pinMode(buzzer,OUTPUT);
  pinMode(pir,INPUT);
  pinMode(tilt,INPUT);
  pinMode(r,OUTPUT);
  pinMode(g,OUTPUT);
  pinMode(b,OUTPUT);
  Serial.begin(9600);
}
void loop()
{
  carry=digitalRead(tilt);
  i=digitalRead(pir);
  j=analogRead(temp);
  delay(500);
  if((carry==1)&&(i!=HIGH))
  {
    digitalWrite(led1,HIGH);
    delay(500);
    digitalWrite(led2,HIGH);
    delay(500);
    digitalWrite(led3,HIGH);
    delay(500);
    digitalWrite(led1,LOW);
    delay(500);
    digitalWrite(led2,LOW);
    delay(500);
```

```
    digitalWrite(led3,LOW);
    delay(500);
}
else if(i!=HIGH)
{
    digitalWrite(led3,HIGH);
    delay(500);
    digitalWrite(led2,HIGH);
    delay(500);
    digitalWrite(led1,HIGH);
    delay(500);
    digitalWrite(led3,LOW);
    delay(500);
    digitalWrite(led2,LOW);
    delay(500);
    digitalWrite(led1,LOW);
    delay(500);
}
```

```
if(i==HIGH)
{
    digitalWrite(led1,HIGH);
    digitalWrite(led2,HIGH);
    digitalWrite(led3,HIGH);
    tone(buzzer,1200,500);
    digitalWrite(led1,LOW);
    digitalWrite(led2,LOW);
    digitalWrite(led3,LOW);
}
if(j<100)
{
    analogWrite(r,255);
    analogWrite(g,0);
    analogWrite(b,0);
    delay(100);
    analogWrite(r,0);
    analogWrite(g,255);
    analogWrite(b,0);
    delay(100);
    analogWrite(r,0);
    analogWrite(g,0);
    analogWrite(b,255);
    delay(100);
    analogWrite(r,255);
    analogWrite(g,0);
    analogWrite(b,255);
    delay(100);
    analogWrite(r,255);
    analogWrite(g,255);
    analogWrite(b,0);
}
```

```

delay(100);
analogWrite(r,0);
analogWrite(g,255);
analogWrite(b,255);
  delay(100);
analogWrite(r,255);
analogWrite(g,255);
analogWrite(b,255);
}else{
analogWrite(r,0);
analogWrite(g,0);
analogWrite(b,0);
}
}

```

