Assignment -1 Smart Home

|  |  |
| --- | --- |
| Date | 29 September 2022 |
| Student Name | Deepan R |
| Student Roll No | 911719104010 |
| 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:

