**Assignment -1**

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| Assignment Date | 16 September 2022 |
| Student Name | VARSHINI R |
| Student Roll Number | 820419205064 |
| Maximum Marks | 2 Marks |

**Smart home :**

const int echoPin=2, triggerPin=3, red=4, green=5, blue=6;

const int buzz = 7;

int pulseValue;

float distance;

void setup( ) {

pinMode(echoPin, INPUT);

pinMode(triggerPin, OUTPUT);

pinMode(red, OUTPUT);

pinMode(green, OUTPUT);

pinMode(blue, OUTPUT);

pinMode(buzz, OUTPUT);

Serial.begin(9600);

}

void loop( )

{

digitalWrite(triggerPin, LOW);

delayMicroseconds(5);

digitalWrite(triggerPin, HIGH);

delayMicroseconds(10);

pulseValue=pulseIn(echoPin, HIGH);

distance=(pulseValue\*0.0001657\*39.37);

if (distance<=5)

{

digitalWrite(red, HIGH);

digitalWrite(green, LOW);

digitalWrite(blue, LOW);

tone(buzz, 500);

}

else if (distance<=10)

{

digitalWrite(green, HIGH);

digitalWrite(red, LOW);

digitalWrite(blue, LOW);

tone(buzz, 1000);

}

else

{

digitalWrite(blue, HIGH);

digitalWrite(red, LOW);

digitalWrite(green, LOW);

tone(buzz, 1500);

}

Serial.print(distance);

Serial.println(" inch/es");

delay(500);

}

