**Assignment -1**

**Tinkercad**

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| Assignment Date | 15 September 2022 |
| Student Name | S.Arul Jothika |
| Student Roll Number | 812419106007 |
| Maximum Marks | 2 Marks |

**Question-1:**

Build a smart home in tinkercad Use atleast 2 sensors, led, buzzer in a circuit. Simulate in a single code.

**Solution:**

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);S

}

Serial.print(distance); Serial.println(" inch/es"); delay(500);

}

