ASSIGNMENT – 1

Build a smart home in Tinker cad with 2 sensors, an Led, buzzer and submit it.

CODE:

```
int inches = 0;
int cm = 0;
long rudc(int triggerPin, int echoPin)
{
   pinMode(6, OUTPUT);
   pinMode(triggerPin, OUTPUT); // Clear the trigger
 digitalWrite(triggerPin, LOW);
 delayMicroseconds(2);
 // Sets the trigger pin to HIGH state for 10 microseconds
 digitalWrite(triggerPin, HIGH);
 delayMicroseconds(10);
 digitalWrite(triggerPin, LOW);
 pinMode(echoPin, INPUT);
 // Read the echo pin, and returns the sound wave travel time in microseconds
 return pulseIn(echoPin, HIGH);
 }
```

```
void setup()
{
  pinMode(3, OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  // measure the ping time in cm
  cm = 0.01723 * rudc(7, 7);
  // convert to inches by dividing by 2.54
  inches = (cm / 2.54);
  Serial.print(inches);
  Serial.print("in, ");
  Serial.print(cm);
  Serial.println("cm");
  delay(100); // Wait for 100 millisecond(s)
  {
  if (cm<90)
    digitalWrite(6,HIGH);
  else
    digitalWrite(6,LOW);
  }
```

```
  int a = digitalRead(2);
  Serial.println(a);
  pinMode(3,OUTPUT);
  if(a==HIGH)
  {
    Serial.println("motion detected!!");
    digitalWrite(3,HIGH);
  delay(1000);
  }
  else
  {
    Serial.println("motion not detected!!");
    digitalWrite(3,LOW);
    delay(1000);
  }
}
```