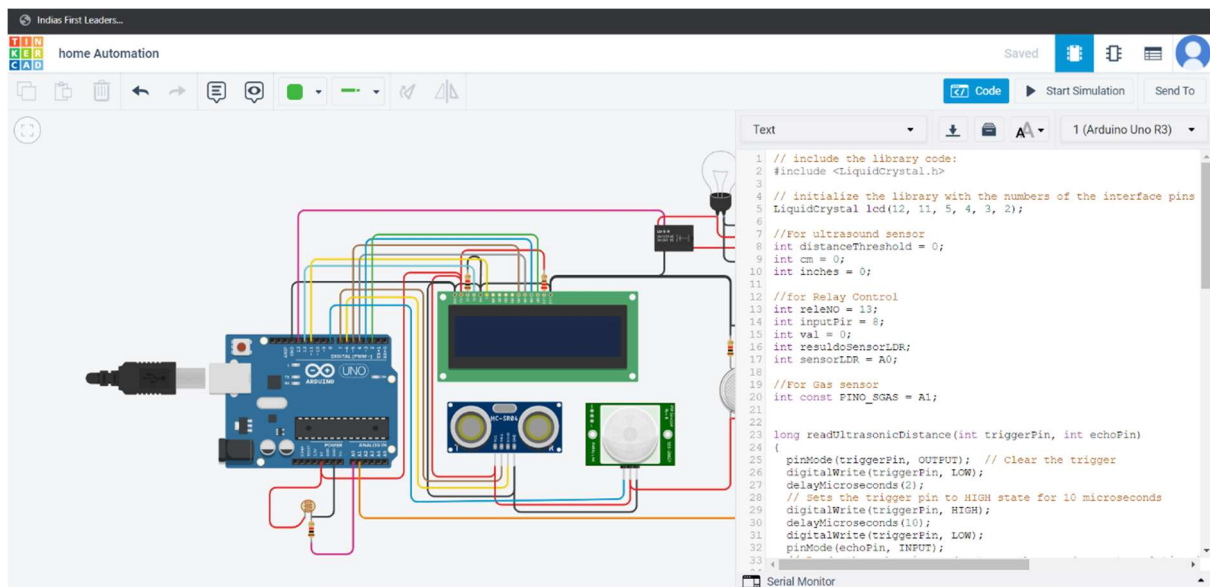
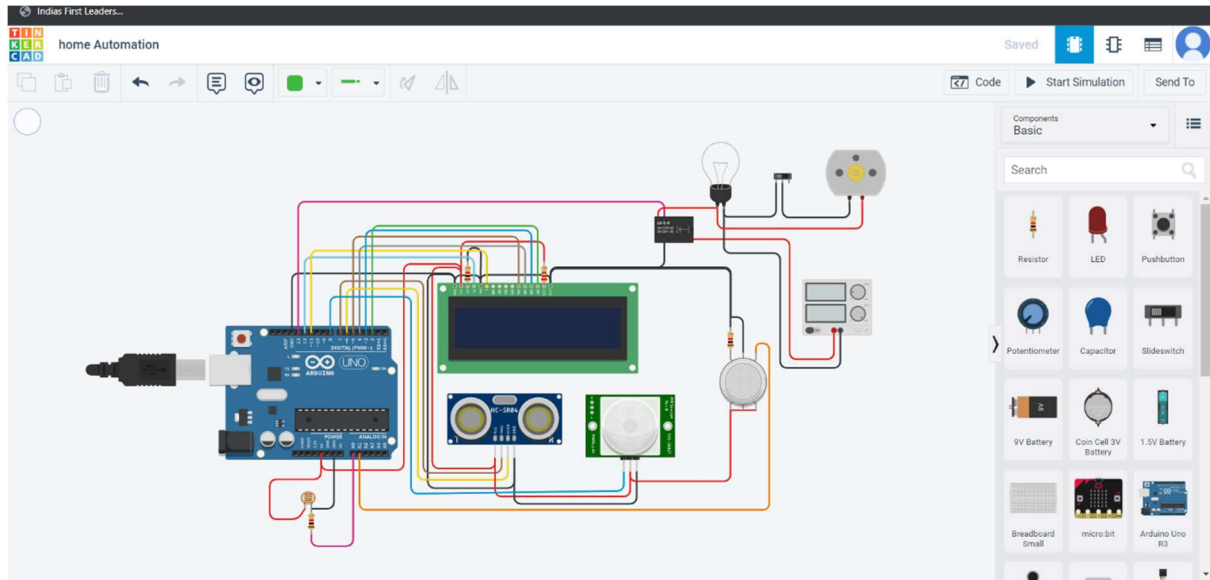


Assignment 1

HOME AUTOMATION IN TINKERCAD

Team ID : PNT2022TMID16026



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Code Start Simulation Send To

1 (Arduino Uno R3)

```

28 // Sets the trigger pin to HIGH state for 10 microseconds
29 digitalWrite(triggerPin, HIGH);
30 delayMicroseconds(10);
31 digitalWrite(triggerPin, LOW);
32 pinMode(echoPin, INPUT);
33 // Reads the echo pin, and returns the sound wave travel time in
34 return pulseIn(echoPin, HIGH);
35 }
36
37
38 void setup() {
39 // set up the LCD's number of columns and rows:
40 lcd.begin(16, 2);
41 pinMode(releNO, OUTPUT);
42 pinMode(inputPin, INPUT);
43 pinMode(sensorLDR, INPUT);
44 Serial.begin(9600);
45 }
46
47 void loop() {
48 // set threshold distance to activate LEDs
49 distanceThreshold = 350;
50 // measure the ping time in cm
51 cm = 0.01723 * readUltrasonicDistance(7, 6);
52 // convert to inches by dividing by 2.54
53 inches = (cm / 2.54);
54
55 lcd.setCursor(0,0); // Sets the location at which subsequent
56 lcd.print("D:"); // Prints string "Distance" on the LCD
57 lcd.print(cm); // Prints the distance value from the sensor
58 lcd.print("cm");
59 delay(10);
60
61

```

Serial Monitor

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Code Start Simulation Send To

1 (Arduino Uno R3)

```

56 lcd.print("D:"); // Prints string "Distance" on the LCD
57 lcd.print(cm); // Prints the distance value from the sensor
58 lcd.print("cm");
59 delay(10);
60
61 val = digitalRead(inputPin);
62 resultdoSensorLDR = analogRead(sensorLDR);
63 if(resultdoSensorLDR<600)
64 {
65 if(val == HIGH)
66 {
67 digitalWrite(releNO, HIGH);
68 lcd.setCursor(0,1);
69 lcd.print("L: On ");
70 delay(5000);
71 }
72 else{
73 digitalWrite(releNO, LOW);lcd.setCursor(0,1);
74 lcd.print("L: Off");
75 delay(300);
76 }
77 }
78 else{ digitalWrite( releNO, LOW);
79 Serial.println(resultdoSensorLDR);
80 delay(500);
81 }
82
83 int color = analogRead(PINO_SGA3);
84 lcd.setCursor(8,0);
85 //lcd.print("");
86 if(color <= 85){
87

```

Serial Monitor

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Code Start Simulation Send To

1 (Arduino Uno R3)

```
67 digitalWrite(releNO, HIGH);
68 lcd.setCursor(0,1);
69 lcd.print("L: On ");
70 delay(500);
71 }
72 else{
73 digitalWrite(releNO, LOW);lcd.setCursor(0,1);
74 lcd.print("L: Off");
75 delay(500);
76 }
77 }
78 else{ digitalWrite (releNO, LOW);
79 Serial.println(resuldoSensorLDR);
80 delay(500);
81 }
82
83 int color = analogRead(PINO_SQAS);
84
85 lcd.setCursor(8,0);
86 //lcd.print("");
87 if(color <= 85){
88 lcd.print("G:Low ");
89 } else if(color <= 120){
90 lcd.print("G:Med ");
91 } else if(color <= 200){
92 lcd.print("G:High");
93 } else if(color <= 300){
94 lcd.print("G:Exit ");
95 }
96
97 delay(250);
98 }
```

Serial Monitor