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***COURSE:*** *COMPUTER ARCHITECTURE* ***(LAB)***

***TASK #:*** *9*

***SUBMITTED TO:*** *SIR ABUZAR ZAFAR*

***CODE:***

*#include <LiquidCrystal.h>*

*int led = 13;*

*const int buzzer = 7;*

*int sensor = 6;*

*int state = LOW;*

*int val = 0;*

*LiquidCrystal lcd(12, 11, 5, 4, 3, 2);*

*void setup()*

*{*

*pinMode(led, OUTPUT);*

*pinMode(buzzer, OUTPUT);*

*pinMode(sensor, INPUT);*

*for(int secondes = 1; secondes <= 10; secondes++)*

*{*

*lcd.clear();*

*lcd.print(secondes);*

*delay(1000);*

*if (secondes == 10)*

*{*

*lcd.clear();*

*lcd.print("DEVICE ACTIVE!");*

*delay(1000);*

*lcd.clear();*

*}*

*}*

*}*

*void loop()*

*{*

*val = digitalRead(sensor);*

*if (val == HIGH)*

*{*

*digitalWrite(led,HIGH);*

*delay(100);*

*tone(buzzer, 1000);*

*delay(1000);*

*if (state == LOW)*

*{*

*lcd.println("MOTION DETECTED!");*

*delay(1200);*

*lcd.clear();*

*state = HIGH;*

*}*

*}*

*else*

*{*

*digitalWrite(led,LOW);*

*delay(100);*

*noTone(buzzer);*

*delay(1000);*

*if (state == HIGH)*

*{*

*lcd.println("MOTION STOPPED!");*

*state = LOW;*

*}*

*}*

*}*

***ANSWER # 1:***

* *(PIR) Passive Infrared Sensor. It is an electronic sensor which is use to measure infrared light radiating from objects.*

***ANSWER # 2:***

* *The range of (PIR) sensor is* ***10 to 30 meters*** *depending on segment mirrors.*

***ANSWER # 3:***

* *Indoor and Outdoor Lights.*
* *Security Alarm.*
* *Door Bell.*