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

***TASK #:*** *7*

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

***CODE:***

*#include <IRremote.h>*

*#include <LiquidCrystal.h>*

*int RECV\_PIN = 6;*

*int Red = 7;*

*int Yellow = 8;*

*int Green = 9;*

*int itsONled[] = {0,0};*

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

*#define code1 2295*

*#define code2 34935*

*#define code3 18615*

*IRrecv irrecv(RECV\_PIN);*

*decode\_results results;*

*void setup()*

*{*

*lcd.begin(16,2);*

*irrecv.enableIRIn();*

*pinMode(Red, OUTPUT);*

*pinMode(Yellow, OUTPUT);*

*pinMode(Green, OUTPUT);*

*}*

*void loop()*

*{*

*if (irrecv.decode(&results))*

*{*

*unsigned int value = results.value;*

*switch(value)*

*{*

*case code1: // FOR GREEN LED*

*if(itsONled[1] == 1)*

*{*

*digitalWrite(Green, LOW);*

*itsONled[1] = 0;*

*}*

*else*

*{*

*digitalWrite(Green, HIGH);*

*itsONled[1] = 1;*

*}*

*break;*

*case code2: // FOR YELLOW LED*

*if(itsONled[1] == 1)*

*{*

*digitalWrite(Yellow, LOW);*

*itsONled[1] = 0;*

*}*

*else*

*{*

*digitalWrite(Yellow, HIGH);*

*itsONled[1] = 1;*

*}*

*break;*

*case code3: // FOR RED LED*

*if(itsONled[1] == 1)*

*{*

*digitalWrite(Red, LOW);*

*itsONled[1] = 0;*

*}*

*else*

*{*

*digitalWrite(Red, HIGH);*

*itsONled[1] = 1;*

*}*

*break;*

*}*

*if (value == code1 || value == code2 || value == code3 )*

*{lcd.println();}*

*else{lcd.println(value);*

*delay (700);*

*}*

*lcd.clear();*

*irrecv.resume();*

*}*

*}*

***ANSWER # 1:***

* *30.3 kHz, 33 kHz,****36 kHz****,****38 kHz****, 40 kHz, and 56 kHz, are the carrier frequencies of IR*.

***ANSWER # 2:***

* *IR Photodiode is a detector which capture reflected light of an IR LED.*

***ANSWER # 3:***

* *Remote control fan.*
* *Remote control Door Lock.*
* *AC.*
* *TV.*
* *Controlled Robots.*