# Description:

Write a program to start different LEDs on input from serial port.

# Source Code:

// include the library code:

#include <LiquidCrystal.h>

// initialize the library with the numbers of the interface pins

LiquidCrystal lcd(11,12,14,15,16,17);

void setup()

{

//Set pin number 10 as digital out where relay 1 is connected

pinMode(10,OUTPUT);

//Set pin number 9 as digital out where relay 2 is connected

pinMode(9,OUTPUT);

//Set pin number 8 as digital out where relay 3 is connected

pinMode(8,OUTPUT);

//Initialize the LCD in 16x2 mode

lcd.begin(16, 2);

Serial.begin(9600);

}

void loop()

{

if(Serial.available())

{

delay(200);

lcd.clear();

int inpval = Serial.parseInt();

if(inpval == 1)

{

lcd.setCursor(1,1);

lcd.print("RELAY 1 ON ");

//Write digital HIGH on pin 10 i.e. generating 5v at pin 10 where relay 1 is connected

digitalWrite(10, HIGH);

delay(2000);

digitalWrite(10, LOW);

delay(2000);

}

if(inpval == 2)

{

lcd.setCursor(1,1);

lcd.print("RELAY 2 ON ");

//Write digital HIGH on pin 9 i.e. generating 5v at pin 9 where relay 2 is connected

digitalWrite(9, HIGH);

delay(2000);

digitalWrite(9, LOW);

delay(2000);

}

if(inpval == 3)

{

lcd.setCursor(1,1);

lcd.print("RELAY 3 ON ");

//Write digital HIGH on pin 8 i.e. generating 5v at pin 8 where relay 3 is connected

digitalWrite(8, HIGH);

delay(2000);

digitalWrite(8, LOW);

delay(2000);

}

}

}

# Libraries:

No additional libraries required.

# Functions:

*pinMode(10,OUTPUT):*

This is used to set a digital out on the pin number, here it sets pin number 10 as digital out where relay 1 is connected

*pinMode(9,OUTPUT):*

This is used to set a digital out on the pin number, here it sets pin number 9 as digital out where relay 2 is connected

*pinMode(8,OUTPUT):*

This is used to set a digital out on the pin number, here it sets pin number 8 as digital out where relay 3 is connected

*Serial.parseInt():*

This is used to parse integer value to be displayed on serial monitor and LCD.

*digitalWrite(pin\_number, HIGH):*

It generates the specified value output at the pin. High generates 5v to the connection pins 8, 9, 10 which in this case are the relays.

*digitalWrite(pin\_number, LOW):*

Low generates 0v to the connection pins 8, 9, 10 which in this case are the relays.