

LAMPIRAN

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/**
 * This example demonstrates how to read analog signals
 * It assumes there are potentiometers connected
 * to the 16 channels of the 74HC4067 mux/demux
 *
 * For more about the interface of the library go to
 * https://github.com/pAIgn10/MUX74HC4067
 */
#include <Wire.h>
#include "MUX74HC4067.h"
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27, 16, 2);
// Creates a MUX74HC4067 instance
// 1st argument is the Arduino PIN to which the EN pin connects
// 2nd-5th arguments are the Arduino PINs to which the S0-S3 pins
connect
MUX74HC4067 mux(6, 2, 3, 4, 5);
const int buttonPin = 11;
int buttonState = 0;
void setup()
{
  Serial.begin(9600); // Initializes serial port
  // Waits for serial port to connect. Needed for Leonardo only
  while ( !Serial ) ;

  // Configures how the SIG pin will be interfaced
  // e.g. The SIG pin connects to PIN A0 on the Arduino,
  // and PIN A0 is a analog input
  mux.signalPin(A0, INPUT, ANALOG);
  lcd.begin(); // initialize the lcd
  lcd.backlight();
  pinMode(9,OUTPUT);
  pinMode(10,OUTPUT);
}

// Reads the 16 channels and reports on the serial monitor
// the corresponding value read by the A/D converter
void loop()
{
  int data;
  int a = 0;
```

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int b = 0;
int c;
int sp = analogRead (A1);
int lev1;
int lev3;
buttonState = digitalRead(buttonPin);
pinMode(7, OUTPUT);
pinMode(8, OUTPUT);
// int volt;
for (byte j = 0; j < 1; j++)
{

    digitalWrite (7, HIGH);
    digitalWrite (8, LOW);
for (byte i = 0; i < 16; ++i)
{
    // Reads from channel i. Returns a value from 0 to 1023
    data = mux.read(i);
    //volt = double ((data) * 100 / 1023);
    Serial.print("Potentiometer at channel ");
    Serial.print(i);
    Serial.print(" is at ");
    Serial.print(data);
    Serial.println("%");
    lev1 = mux.read(0);
    lev3 = mux.read(2);
    if (data > sp)
    {
        a = a+1;
    }
    delay (100);
}
delay (500);
digitalWrite (7, LOW);
digitalWrite (8, HIGH);

for (byte i = 0; i < 16; ++i)
{
    // Reads from channel i. Returns a value from 0 to 1023
    data = mux.read(i);
    Serial.print("Potentiometer at channel ");
    Serial.print(i);
    Serial.print(" is at ");
    Serial.print(data);
    Serial.println("%");
    if (data > sp)

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    {
        b = b+1;
    }
    delay (100);
}
}
Serial.println();
delay(500);
Serial.print("level :");
Serial.print(a);
Serial.println();
Serial.print("level :");
Serial.print(b);
Serial.println();
c = a + b;
Serial.print("level :");
Serial.print(c);
Serial.println();
Serial.print("setpoint :");
Serial.print(sp);
Serial.println();
    if (buttonState == HIGH)
{
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Water:");
    lcd.print(lev1);
    lcd.setCursor(0,1);
    lcd.print("Oil:");
    lcd.print(lev3);
}
else
{lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("Level:");
    lcd.print(c);
    lcd.setCursor(0,1);
    lcd.print("Set point:");
    lcd.print(sp);
}

if (c>=2)
{
    digitalWrite(9,1);
    digitalWrite(10,0);
}

```

```
        delay(500);
        digitalWrite(9,0);
        digitalWrite(10,0);
    }
else
{
    digitalWrite(9,0);
    digitalWrite(10,1);
    delay(500);
    digitalWrite(9,0);
    digitalWrite(10,0);
}
}
```

