

ข้อที่ 6

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1  #include <stdio.h>
2  #include <errno.h>
3  #include <wiringPi.h>
4  #define BUTTON_PIN 0
5  // Use GPIO Pin 17 = Pin 0 of wiringPi Library
6  int delayT = 1000;
7  int count=0;
8  volatile int eventCount = 0;
9  void myInterrupt(void) { // called every time an event occurs
10     // the event counter
11     if(eventCount==0){
12         if(count==0){
13             delayT=delayT/2;
14             count=1;
15         }else if(count==1){
16             delayT = delayT/2;
17             count =2;
18         }else if(count==2){
19             delayT = 1000;
20             count=0;
21         }
22     }
23     eventCount++;
24 }
25
26 int main(void) {
27     int pin1 = 23; //msb
28     int pin2 = 24;
29     int pin3 = 25; //lsb
30     if (wiringPiSetup(<0) // check the existence of wiringPi library
31     {
32         printf ("Cannot setup wiringPi: %s\n", strerror (errno));
33         return 1; // error code = 1
34     }
35     // set wiringPi Pin 0 to generate an interrupt from 1-0 transition
36     // myInterrupt() = my Interrupt Service Routine
37     if (wiringPiISR (BUTTON_PIN, INT_EDGE_FALLING, &myInterrupt) < 0) {
38         printf ("Cannot setup ISR: %s\n", strerror (errno));
39         return 2; // error code = 2
40     }
41     // display counter value every second
42     pinMode(pin1, OUTPUT); /* set pin=7 to Output mode */
43     pinMode(pin2, OUTPUT);
44     pinMode(pin3, OUTPUT);
45     int i=0;
46     int x=1; //pos to neg
47     while(1) {
48         printf("%d\n", count);
49         eventCount = 0;
50         digitalWrite(pin1, (i&4)>>2);
51         digitalWrite(pin2, (i&2)>>1);
52         digitalWrite(pin3, i&1);
53         i=i+x;
54         if(i==7){
55             x=-1;
56         }
57         if(i==0){
58             x=1;
59         }
60         delay(delayT);
61     }
62     return 0; // error code = 0 (No Error)
63 }

```