

```

1 //=====
2 //
3 // Step 44
4 // PWMによるサーボモータ制御
5 //
6 //=====
7
8 #include "mbed.h"
9 InterruptIn swL(p18);    // JP2(2-3)
10 DigitalOut led1(LED1);
11 DigitalOut led2(LED2);
12 PwmOut pwm(p26);
13
14 int flgServo = 0;
15
16 //-----
17 // Interrupt SW Input
18 //-----
19 void int_swL(void)
20 {
21     flgServo = (flgServo == 0) ? 1 : 0;
22     led1 = flgServo;
23
24     while( swL == 0 );
25 }
26
27 //-----
28 // Main
29 //-----
30 int main()
31 {
32     swL.mode(PullUp);    // Pull Up
33     swL.fall(&int_swL);
34
35     flgServo = 0;
36     while(1)
37     {
38         if( flgServo == 1 )
39             break;
40         wait(0.5);
41     }
42     wait(1);
43
44     led2 = 1;
45
46     pwm.period(0.020);    // servo requires a 20ms period
47     int start=500, end=2400;
48
49     while(flgservo == 1)
50     {
51         for(int p = start; p <= end; p += 10)
52         {
53             pwm.pulsewidth_us(p);
54             wait_ms(10);
55         }
56         for(int p = end; p >=start; p -= 10)
57         {
58             pwm.pulsewidth_us(p);
59             wait_ms(10);
60         }
61     }
62     while(1)
63     {
64         led2 = 1;
65         wait(0.2);
66         led2 = 0;

```

```
67 |         wait(0.2);  
68 |  
69 |     }  
70 | }
```