

Control Surface Example

PieterP

```
1  int needToPrint = 0;
2  int count;
3  int in = 2;
4  int lastState = LOW;
5  int trueState = LOW;
6  long lastStateChangeTime = 0;
7  int cleared = 0;
8
9  // constants
10
11 int dialHasFinishedRotatingAfterMs = 100;
12 int debounceDelay = 10;
13
14 void setup()
15 {
16   Serial.begin(9600);
17   pinMode(in, INPUT);
18 }
19
20 void loop()
21 {
22   int reading = digitalRead(in);
23
24   if ((millis() - lastStateChangeTime) > dialHasFinishedRotatingAfterMs) {
25     // the dial isnt dialed, or has just finished dialing
26     if (needToPrint) {
27       // if its just finished being dialed, we need to send the number down the serial
28       // line and reset the count. We mod the count by 10 because '0' will send 10 pulses.
29       Serial.println(count % 10, DEC);
30       needToPrint = 0;
31       count = 0;
32       cleared = 0;
33     }
34   }
35
36   if (reading != lastState) {
37     lastStateChangeTime = millis();
38   }
39   if ((millis() - lastStateChangeTime) > debounceDelay) {
40     // debounce - this happens once it's stablized
41     if (reading != trueState) {
42       // this means that the switch has either just gone from closed->open or vice versa.
43       trueState = reading;
44       if (trueState == HIGH) {
45         // increment the count of pulses if it's gone high.
46         count++;
47         needToPrint = 1; // we'll need to print this number (once the dial has finished rotating)
48       }
49     }
50   }
51   lastState = reading;
52 }
```