

```
1  /*
2   * SPI_PR.c
3   *
4   * Created: 1/29/2026 12:10:06 PM
5   * Author : Eliph
6   */
7
8 #include <avr/io.h>
9 #include <stdint.h>
10 #include <avr/interrupt.h>
11 #include "SPIC/SPIC.h"
12 #include "ADC/ADC.h"
13
14 //GLOBAL: ADC.
15 uint8_t ADC_VALUES[8];
16 uint8_t ADC_ACT[8];
17 uint8_t ADC_ACT_CN = 0;
18 uint8_t ADC_CN = 0;
19 unsigned char RCD_DATA;
20
21 //SETUP:
22 void SETUP(void){
23     cli();
24     //OUTPUT LEDs:
25     DDRD = 0xFF;
26
27     //PORTC as input:
28     DDRC = 0x00;
29
30     //SPI: SLAVE.
31     SPI_SETUP(SPI_SLAVE, SPI_MODE0, SPI_MSB, 128);
32
33     //
34     SPDR = 0x00;
35
36     //ENABLE: SPI_ISR.
37     SPCR |= (1<<SPIE);
38
39     sei();
40 }
41
42 //ISR:
43 ISR(ADC_vect){
44     //STORE:
45     ADC_VALUES[ADC_ACT[ADC_CN]] = ADCH;
46
47     //INC:
48     ADC_CN++;
49     if (ADC_CN == ADC_ACT_CN){
```

```
50     ADC_CN = 0;
51 }
52
53 //NEW:
54 ADMUX = (ADMUX & 0xF0) | (ADC_ACT[ADC_CN]& 0x0F);
55
56 //START:
57 ADCSRA |= (1<<ADSC);
58 }
59 ISR(SPI_STC_vect){
60     //READ:
61     uint8_t SPI_VALUE = SPDR;
62
63     //CONDITION:
64     if(SPI_VALUE == 'S'){
65         SPDR = 'H';
66     }
67     else{}
68 }
69
70 int main(void)
71 {
72     //SETUP:
73     SETUP();
74
75     //ADC:
76     ADC_PC05_67(1,0,2,1,0,1,8,0);
77
78     //ADC selection: PC0 and PC1;
79     uint8_t ADC_SL[2] = {0,1};
80     ALT_ADC(ADC_SL, 2);
81
82     /* Replace with your application code */
83     while (1)
84     {
85     }
86 }
87
88
```