

```
1  #include "stm32f10x.h"
2  #include "project.h"
3
4  void ADCinit(void)
5  {
6      RCC->APB2ENR |= RCC_APB2ENR_ADC1EN | RCC_APB2ENR_AFIOEN | RCC_APB2ENR_IOPAEN;
7      GPIOA->CRL &= ~GPIO_CRL_CNF1_0 & ~GPIO_CRL_CNF2_0 & ~GPIO_CRL_CNF3_0 & ~GPIO_CRL_CNF4_0;
8      ADC1->CR2 |= 0x00000001;
9  }
10
11 void startTemp1(uint16_t channel)
12 {
13     //uint8_t hexval;
14     ADC1->SQR3 = 0x00000001;
15     ADC1->CR2 = 0x00000001;
16 }
17
18 uint16_t readTemp1(void)
19 {
20     uint16_t adc_data = 0;
21     while(!(ADC1->SR & ADC_SR_EOC));
22
23     adc_data = (ADC1->DR & ADC_DR_DATA);
24     return(adc_data);
25 }
26
27 void startTemp2(uint16_t channel)
28 {
29     //uint8_t hexval;
30     ADC1->SQR3 = 0x00000001;
31     ADC1->CR2 = 0x00000001;
32 }
33
34 uint16_t readTemp2(void)
35 {
36     uint16_t adc_data = 0;
37     while(!(ADC1->SR & ADC_SR_EOC));
38
39     adc_data = (ADC1->DR & ADC_DR_DATA);
40     return(adc_data);
41 }
42
43 void startCDS1(uint16_t CDS1channel)
44 {
45     //uint8_t hexval;
46     ADC1->SQR3 = 0x00000003;
47     ADC1->CR2 = 0x00000001;
48 }
49
50 uint16_t readCDS1(void)
51 {
52     uint16_t adc_data = 0;
53     while(!(ADC1->SR & ADC_SR_EOC));
54
55     adc_data = (ADC1->DR & ADC_DR_DATA);
56     return(adc_data);
57 }
58 void startCDS2(uint16_t CDS2channel)
59 {
60     //uint8_t hexval;
61     ADC1->SQR3 = 0x00000004;
62     ADC1->CR2 = 0x00000001;
63 }
64
65 uint16_t readCDS2(void)
66 {
67     uint16_t adc_data = 0;
68     while(!(ADC1->SR & ADC_SR_EOC));
69
70     adc_data = (ADC1->DR & ADC_DR_DATA);
71     return(adc_data);
72 }
```