

```
1  #ifndef ADC_H_INCLUDED
2  #define ADC_H_INCLUDED
3
4  typedef struct{
5      uint32_t    AdcVal;
6      uint32_t    ConvertedValue;
7      uint32_t    Resolution;
8  }ADC_IntRegister_TypeDef;
9
10 typedef struct {
11     ADC_IntRegister_TypeDef VRefInt;
12     ADC_IntRegister_TypeDef McuTemp;
13     ADC_IntRegister_TypeDef VBat;
14 }ADC_IntRegs_TypeDef;
15
16 extern ADC_IntRegs_TypeDef ADC_InternalRegisters;
17
18
19
20
21 void      ADC_Init(void);
22
23 void      ADC_Read_VREFINT(void);
24 void      ADC_Read_MCUTEMP(void);
25 void      ADC_Read_VBAT(void);
26 uint16_t  ADC_ReadAnalog(uint32_t channel);
27
28 uint16_t  ADC_ConvertTo_mVolts(uint16_t adcval, uint32_t resolution);
29
30
31 #endif /* ADC_H_INCLUDED */
```