```c

#include "adc.h"
#include "lcd.h"

void ADC_init()
{
  GPIOA->CRL &= ~GPIO_CRL_CNF1 & ~GPIO_CRL_CNF2;
  GPIOA->CRL &= ~GPIO_CRL_MODE1 & ~GPIO_CRL_MODE2;

  ADC1->CR2 |= ADC_CR2_ADON | ADC_CR2_CAL;
  ADC1->SMPR2 |= ADC_SMPR2_SMP1 | ADC_SMPR2_SMP2;
  ADC1->SQR3 |= ADC_SQR3_SQ1_0;
}

bool ADC1_read(uint8_t channel)
{
  if (channel == 0x0)
  {
    ADC1->SQR3 = ADC_SQR3_SQ1_0;
  }
  else if (channel == 0x1)
  {
    ADC1->SQR3 = ADC_SQR3_SQ1_1;
  }
  ADC1->CR2 |= ADC_CR2_ADON;
  uint16_t data =0x0;
  while ((ADC1->SR & ADC_SR_EOC) != 0x2)
  {

  }
  data = ADC1->DR;
  if (data > 0x5AA)
  {
    return true;
  }
  else
  {
    return false;
  }
}
void send_2_LCD1(uint8_t data)
{

  uint32_t z = data;
  int f = 4;

  for (int i = 0; i < 2; i++)
  {
  z = data >> f;
  f -=4;
  uint8_t x = (z & 0x0000000F);
  if (x <= 0x9)
    {
      x += 0x30;
    }
    else if (x <= 0xF && x > 0x9)
    {
      x += 0x37;
    }
    Data_2_LCD(x);
  }
}
void send_full(uint32_t data)
{
  uint32_t z = data;
  int f =0;

  for (int i = 0; i < 8; i++)
  {
  z = data >> (28-f);
  f +=4;
  uint8_t x = (z & 0x0000000F);
  if (x <= 0x9)
```

```
74        {
75          x += 0x30;
76        }
77        else if (x <= 0xF && x > 0x9)
78        {
79          x += 0x37;
80        }
81        Data_2_LCD(x);
82      }
83    }
```