

```

// ***** adc.c *****

// Project: Keil Labs and Project

// File: adc.c

// Class: ENEL 351 Lab Works

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// SID: 200455829

// Description: The project is based on the STM32F103RB that is being used in ENEL 351 Labs.

// It will also be used in the Project related to input and output of various sensors.


// =====

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// =====


// ***** Header Files *****

#include "stm32f10x.h"

#include "header.h"


// ***** ADC Function to Read Pressure *****


int readPressure(void)
{
    ADC1 -> SQR3 = 0x00000000;

    ADC1 -> CR2 |= ADC_CR2_ADON;

    while(!(ADC1->SR & ADC_SR_EOC))
    {}

    return ADC1->DR;
}

```

```
}
```

```
// ***** ADC Function to Read PhotoResistor *****
```

```
int readPhotoResistor(void)
```

```
{
```

```
    ADC2 -> SQR3 = 0x00000001;
```

```
    ADC2 -> CR2 |= ADC_CR2_ADON;
```

```
    while(!(ADC2 -> SR & ADC_SR_EOC))
```

```
    {}
```

```
        return ADC2 -> DR;
```

```
}
```

```
// =====
```

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// *****IMPORTANT*****
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// =====
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