

Hi

I use EXTI for trigger ADC for stm32f103.

```

RCC_AHBPeriphClockCmd(RCC_AHBPeriph_DMA1, ENABLE);
/* DMA1 Channel1 Configuration -----*/
DMA_DeInit(DMA1_Channel1);
DMA_InitStructure.DMA_PeripheralBaseAddr = ADC1_DR_Address;
DMA_InitStructure.DMA_MemoryBaseAddr = (uint32_t)&ADC3ConvertedValue;
DMA_InitStructure.DMA_DIR = DMA_DIR_PeripheralSRC;
DMA_InitStructure.DMA_BufferSize = 300;
DMA_InitStructure.DMA_PeripheralInc = DMA_PeripheralInc_Disable;
DMA_InitStructure.DMA_MemoryInc = DMA_MemoryInc_Enable;
DMA_InitStructure.DMA_PeripheralDataSize = DMA_PeripheralDataSize_HalfWord;
DMA_InitStructure.DMA_MemoryDataSize = DMA_MemoryDataSize_HalfWord;
DMA_InitStructure.DMA_Mode = DMA_Mode_Circular;
DMA_InitStructure.DMA_Priority = DMA_Priority_High;
DMA_InitStructure.DMA_M2M = DMA_M2M_Disable;
DMA_Init(DMA1_Channel1, &DMA_InitStructure);

/* Enable DMA Stream Half / Transfer Complete interrupt */
//DMA_ITConfig(DMA1_Channel1, DMA_IT_TC | DMA_IT_HT, ENABLE);

/* Enable DMA1 channel1 */
DMA_Cmd(DMA1_Channel1, ENABLE);
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////

/* ADC1 configuration -----*/
ADC_InitStructure.ADC_Mode = ADC_Mode_Independent;
ADC_InitStructure.ADC_ScanConvMode = DISABLE;
ADC_InitStructure.ADC_ContinuousConvMode = DISABLE;
ADC_InitStructure.ADC_ExternalTrigConv = ADC_ExternalTrigConv_Ext_IT11_TIM8_TRGO ;
ADC_InitStructure.ADC_DataAlign = ADC_DataAlign_Right;
ADC_InitStructure.ADC_NbrOfChannel = 1;
ADC_Init(ADC1, &ADC_InitStructure);
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////

ADC_RegularChannelConfig(ADC1, ADC_Channel_12, 1, ADC_SampleTime_1Cycles5); //c2 ==for voltage */
Regular discontinuous mode channel number configuration */
ADC_DiscModeChannelCountConfig(ADC1, 1);
/* Enable regular discontinuous mode */
ADC_DiscModeCmd(ADC1, ENABLE);

/* Enable ADC1 external trigger conversion */
ADC_ExternalTrigConvCmd(ADC1, ENABLE);

/* Enable ADC1 DMA */
ADC_DMACmd(ADC1, ENABLE);

/* Enable ADC1 */
ADC_Cmd(ADC1, ENABLE);

/* Enable ADC1 reset calibration register */
ADC_ResetCalibration(ADC1);
/* Check the end of ADC1 reset calibration register */
while(ADC_GetResetCalibrationStatus(ADC1));

/* Start ADC1 calibration */
ADC_StartCalibration(ADC1);
/* Check the end of ADC1 calibration */
while(ADC_GetCalibrationStatus(ADC1));
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////

```

The below code is for configuring EXTI.

```
void EXTI11_Config(void)
```

```

{
    GPIO_InitTypeDef GPIO_InitStructure;

    /* Enable GPIOA clock */
    RCC_APB2PeriphClockCmd(RCC_APB2Periph_GPIOB, ENABLE);

    /* Configure PA.00 pin as input floating */
    GPIO_InitStructure.GPIO_Pin = GPIO_Pin_11;
    GPIO_InitStructure.GPIO_Mode = GPIO_Mode_IN_FLOATING;
    GPIO_Init(GPIOB, &GPIO_InitStructure);

    /* Enable AFIO clock */
    RCC_APB2PeriphClockCmd(RCC_APB2Periph_AFIO, ENABLE);

    /* Connect EXTI0 Line to PB.11 pin */
    GPIO_EXTILineConfig(GPIO_PortSourceGPIOB, GPIO_PinSource11);

    /* Configure EXTI0 line */
    EXTI_InitStructure.EXTI_Line = EXTI_Line11;
    EXTI_InitStructure.EXTI_Mode =EXTI_Mode_Interrupt;
    EXTI_InitStructure.EXTI_Trigger = EXTI_Trigger_Rising_Falling;
    EXTI_InitStructure.EXTI_LineCmd = ENABLE;
    EXTI_Init(&EXTI_InitStructure);

// /* Enable and set EXTI0 Interrupt to the lowest priority */
    NVIC_InitStructure.NVIC_IRQChannel = EXTI0_IRQn;
    NVIC_InitStructure.NVIC_IRQChannelPreemptionPriority = 0;
    NVIC_InitStructure.NVIC_IRQChannelSubPriority = 1;
    NVIC_InitStructure.NVIC_IRQChannelCmd = ENABLE;
    NVIC_Init(&NVIC_InitStructure);
}

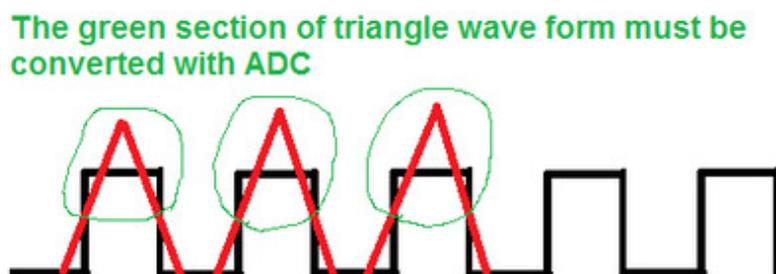
```

It works. When I connect the EXTI_Line11 to the square wave the ADC convert the analog input and put them into the ADC3ConvertedValue.

I adjust EXTI for rising and falling edge.

I want to calculate data between two rising and falling edge of the external interrupt .

But I dont know which section of the ADC3ConvertedValue is linked to the time of converting between two rising and falling edge of external interrupt?



Regards