

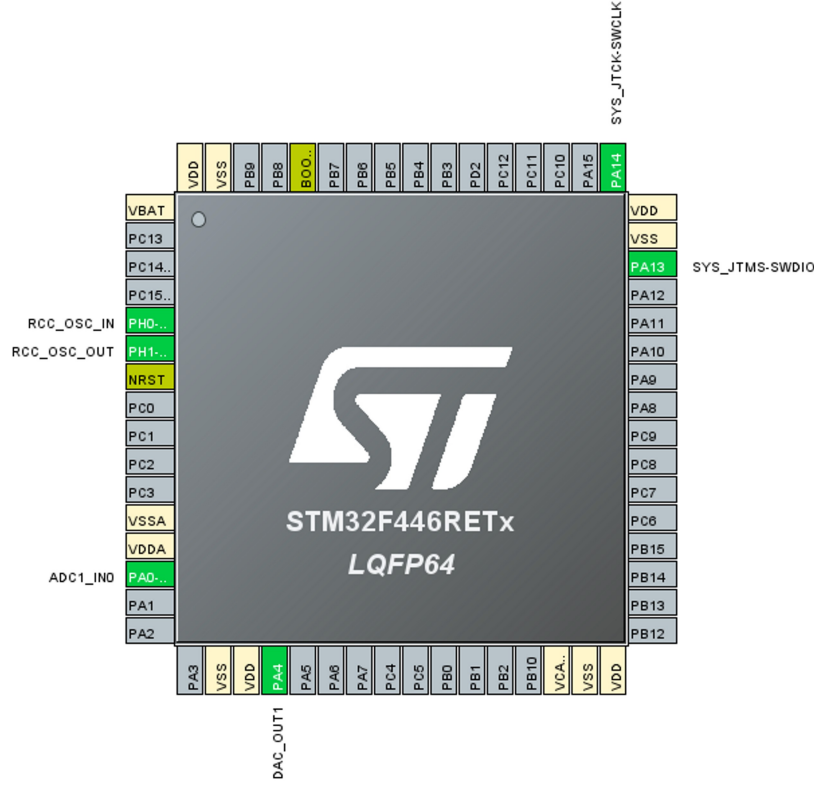
ADC Değeri İle DAC Kontrolü

25 Aralık 2021 Cumartesi 00:57

ADC Değeri İle DAC Kontrolü

➤ HAL

Konfigürasyon Kısmı



| Pin Na... | Signal on ... | GPIO outp... | GPIO mode | GPIO Pull... | Maximum ... | User Label | Modified |
|-----------|---------------|--------------|-------------|----------------|-------------|------------|--------------------------|
| PA0-WK... | ADC1_IN0 | n/a | Analog m... | No pull-up ... | n/a | | <input type="checkbox"/> |
| Pin Na... | Signal on Pin | GPIO outp... | GPIO mode | GPIO P... | Maximum... | User L... | Modified |
| PA4 | DAC_OUT1 | n/a | Analog m... | No pull... | n/a | | <input type="checkbox"/> |

- ADC1 için IN0, DAC için OUT1 seçilir.

ADC_Settings

| | |
|-------------------------------|--|
| Clock Prescaler | PCLK2 divided by 2 |
| Resolution | 12 bits (15 ADC Clock cycles) |
| Data Alignment | Right alignment |
| Scan Conversion Mode | Disabled |
| Continuous Conversion Mode | Enabled |
| Discontinuous Conversion Mode | Disabled |
| DMA Continuous Requests | Disabled |
| End Of Conversion Selection | EOC flag at the end of single channel conversion |

DAC Out1 Settings

| | |
|---------------|--------|
| Output Buffer | Enable |
| Trigger | None |

Kod Kısmı

```
23 /* Private includes -----
24 /* USER CODE BEGIN Includes */
25 uint16_t adc_value, dac_value;
26 /* USER CODE END Includes */
```

- 16 bitlik okuma yapan fonksiyon yazdık.
- Geri dönüşlü fonksiyon olduğundan Return ile değeri geri döndürüyor.

```

600 /* Private user code -----
61  /* USER CODE BEGIN 0 */
620 uint16_t Read_ADC()
63  {
64      HAL_ADC_Start(&hadc1);
65
66      if(HAL_ADC_PollForConversion(&hadc1, 100000) == HAL_OK)
67      {
68          adc_value = HAL_ADC_GetValue(&hadc1);
69
70      }
71      HAL_ADC_Stop(&hadc1);
72
73      return adc_value;
74  }
75  /* USER CODE END 0 */

107  /* USER CODE BEGIN 2 */
108  HAL_DAC_Start(&hdac, DAC_CHANNEL_1);
109  /* USER CODE END 2 */

111  /* Infinite loop */
112  /* USER CODE BEGIN WHILE */
113  while (1)
114  {
115      /* USER CODE END WHILE */
116
117      /* USER CODE BEGIN 3 */
118      dac_value=Read_ADC();
119      HAL_DAC_SetValue(&hdac, DAC_CHANNEL_1, DAC_ALIGN_12B_R, dac_value);
120  }
121  /* USER CODE END 3 */
122  }

```