

Six-step reference design firmware for STEVAL-ESC002V1

Application	Electronic Speed Controller
Middleware	UART UI MC 6STEP
Hardware Abstraction	STM32Cube Hardware Abstraction Layer (HAL)
Hardware	STEVAL-ESC002V1

Features

- Six-step driving
- Back EMF sensing through comparators
- Designed for high speed operation
- Speed regulation through PWM input
- Optional UART interface
- Based on HAL libraries for STM32

Description

The STSW-ESC002V1 package is the reference firmware for the STEVAL-ESC002V1 hardware based on the STSPIN32F0A advanced BLDC controller with embedded STM32 MCU.

It implements a six-step sensorless algorithm for Electronic Speed Controller (ESC) designs.

Product summary	
Six-step reference design firmware for STEVAL-ESC002V1	STSW-ESC002V1
Electronic Speed Controller reference design based on STSPIN32F0A	STEVAL-ESC002V1
N-channel 60 V, 0.0024 Ohm typ., 140 A STripFET F7 Power MOSFET in a PowerFLAT 5x6 package	STL140N6F7
Advanced BLDC controller with embedded STM32 MCU	STSPIN32F0A

Revision history

Table 1. Document revision history

Date	Version	Changes
06-Dec-2018	1	Initial release.

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