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## **Brushless 25 Click**





PID: MIKROE-5644

Brushless 25 Click is a compact add-on board that controls brushless DC (three-phase BLDC) motors with any MCU. This board features the MCT8316A, a high-speed sensorless trapezoidal control integrated FET BLDC driver from Texas Instruments. It provides three individually controllable drivers intended to drive a three-phase BLDC motor, solenoids, or other loads. Each output driver channel consists of N-channel power MOSFETs (six of them in total) configured in a 1/2-H-bridge configuration. Besides, it has a wide operating voltage range from 4.5V to 35V, alongside several built-in protection circuits such as undervoltage, overvoltage, charge pump faults, overcurrent, and overtemperature. This Click board™ makes the perfect solution for driving three-phase brushless DC motors up to 8A peak output current rating.

Brushless 25 Click is supported by a mikroSDK compliant library, which includes functions that simplify software development. This <u>Click board™</u> comes as a fully tested product, ready to be used on a system equipped with the mikroBUS™ socket.

Mikroe produces entire development toolchains for all major microcontroller architectures. Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.





health and safety management system.



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## **Specifications**

Туре	Brushless
Applications	Can be used for driving three-phase brushless DC motors, solenoids or other loads up to 8A output current rating
On-board modules	MCT8316A - high-speed sensorless trapezoidal control integrated FET BLDC driver from Texas Instruments
Key Features	Sensorless motor control algorithm, high output current, low power sleep mode, overcurrent detection and protection, fault diagnostic output, thermal warning and shutdown, PWM and analog motor control, brake function, direction spinning function, and more
Interface	I2C,SPI
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V,External

## **Resources**

<u>mikroBUS™</u>

mikroSDK

Click board™ Catalog

Click boards™

## **Downloads**

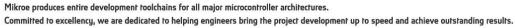
Brushless 25 click example on Libstock

MCT8316A datasheet

MCP4146 datasheet

Brushless 25 click 2D and 3D files

Brushless 25 click schematic







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