



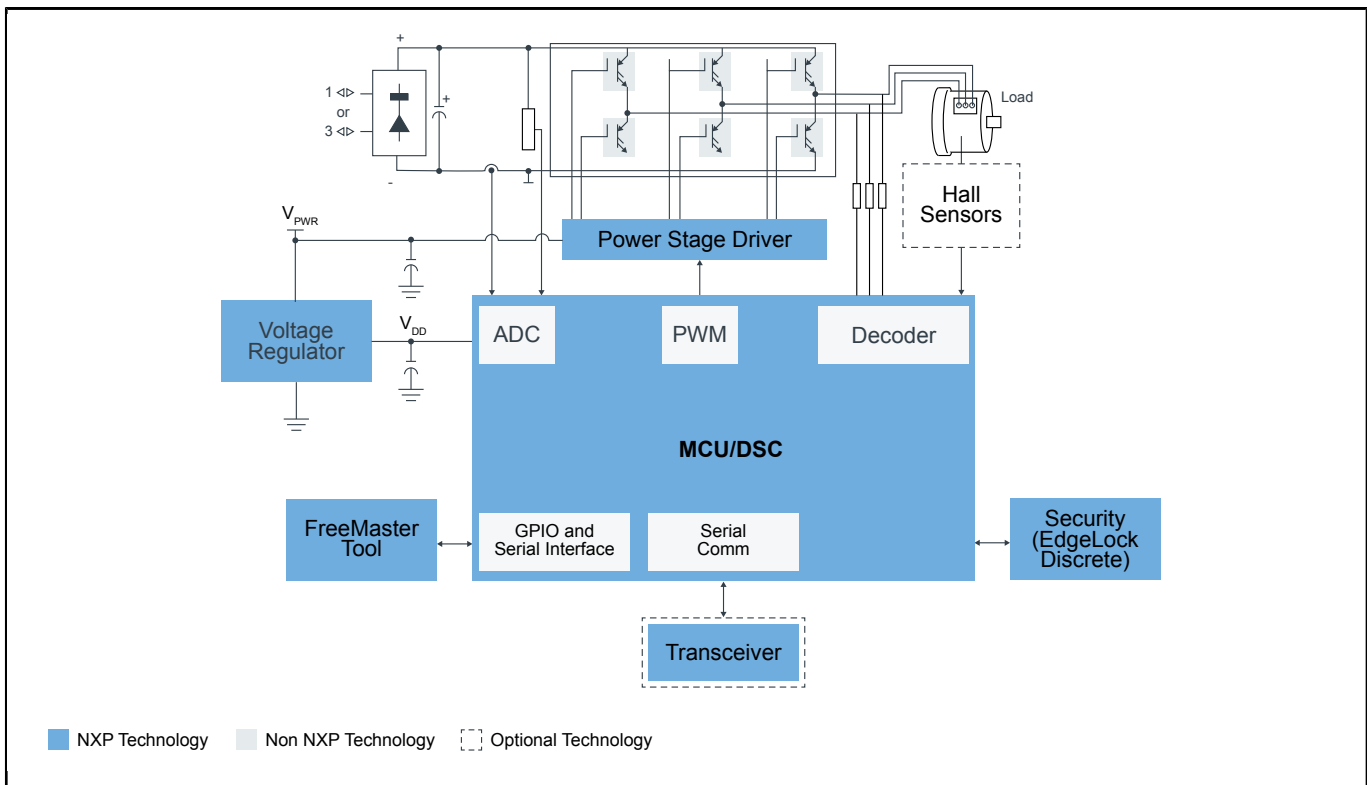
# Brushless DC Motor (BLDC) Control

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The brushless DC (BLDC) motor is also referred to as an electronically commutated motor. There are no brushes on the rotor and commutation is performed electronically at certain rotor positions. The stator magnetic circuit is usually made from magnetic steel sheets. One of the recently popular brushless motor control techniques is Field Oriented Control (FOC).

NXP's broad portfolio and extensive documentation allows you to ease the development effort for BLDC control applications.

## BLDC Block Diagram



### Recommended Products for BLDC

MCU/DSC	<ul style="list-style-type: none"> <li>• <a href="#">KV Series Cortex-M4/M0+/M7</a>: KV Series: Real-time Motor Control and Power Conversion MCUs based on Arm® Cortex®-M0+/M4/M7</li> </ul>
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	<ul style="list-style-type: none"> <li>• <a href="#">KE Series Cortex-M4/M0+</a>: Kinetis® E Series: 5V, Robust Microcontrollers (MCUs) based on Arm® Cortex®-M0+/M4 Core</li> <li>• <a href="#">Digital Signal Controllers</a>: Digital Signal Controllers</li> <li>• <a href="#">LPC5500 Cortex-M33</a>: LPC5500 Series: Arm® Cortex®-M33 based Microcontroller Series for Mass Market, Leveraging 40nm Embedded Flash Technology</li> <li>• <a href="#">MCX Cortex-M</a>: MCX General-Purpose MCUs</li> <li>• <a href="#">S32K General-Purpose MCUs</a>: S32K General-Purpose Microcontrollers</li> </ul>
Power Stage Driver	<ul style="list-style-type: none"> <li>• <a href="#">MC33937</a>: 3-Phase Field Effect Transistor Pre-Driver</li> <li>• <a href="#">GD3100</a>: Advanced High Voltage Isolated Gate Driver for IGBT and SiC MOSFETs</li> <li>• <a href="#">GD3160</a>: Advanced High Voltage Isolated Gate Driver with Segmented Drive for SiC MOSFETs</li> </ul>
Voltage regulator	<ul style="list-style-type: none"> <li>• <a href="#">Power Management</a>: Power Management</li> </ul>
Software	<ul style="list-style-type: none"> <li>• <a href="#">FreeMASTER Run-Time Debugging Tool</a></li> <li>• <a href="#">RTCESL</a>: Real Time Control Embedded Software Motor Control and Power Conversion Libraries</li> <li>• <a href="#">Model-Based Design Toolbox (MBDT)</a></li> </ul>
Transceiver	<ul style="list-style-type: none"> <li>• <a href="#">CAN Transceivers</a>: CAN Transceivers</li> </ul>
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> <li>• <a href="#">EdgeLock® SE050</a>: Plug &amp; Trust Secure Element Family – Enhanced IoT security with high flexibility</li> </ul>

View our complete solution for [Brushless DC Motor \(BLDC\) Control](#).

**Note:** The information on this document is subject to change without notice.

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