



SUCCESS STORY

Filtered Connectors Solutions for UAV Robotic Controls

EMI Filter Connectors safeguard automatic robotic control systems from RF interference and ensure the functions continue to operate accurately and safely.

During operation, robotic control electronics for Unmanned Autonomous Vehicles (UAV) may suffer from electromagnetic interference (EMI). This concern can be managed during the design of these systems with Spectrum Control's EMI filter connectors. Spectrum Control offers a wide range of options that will help improve performance, save board space, and reduce costs by managing EMI at the signal and power I/O.

The EMI filter is built into the connectors providing additional space on the PCB board. Spectrum Control offers a wide range of EMI filter connectors products that include D-subminiature, circular, or hot shoe styles, including miniature products for designs that require even smaller packages. Spectrum Control's EMI filter connector offerings, including our in-house capacitors and shells, are manufactured in the USA, providing our customers with high-quality parts with the industry's shortest lead times.

Engine & Flight Controls

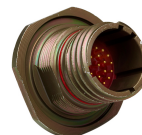
UAV computer-managed ignition and control systems that command all aspects of the engine rely on the performance of EMI filter connectors to ensure the systems continuously monitor the strength of inputs, internal hardware functions, and external driver circuits.

Flight controls include a circuit board with a range of sensors that detect movement. These user commands depend on EMI filter connectors to make certain the data output is used to control the speed of the motors and make the UAV move as intended.

- D-Sub Connectors
- Mini-MIL Connectors



**D-Sub
Connector**



**Circular
Connector**



**Rapid Mate
Connector**



Secure Data Transfer

Communication with ground stations for surveillance, identification, and reconnaissance UAV missions is critical. Rapid Mate connectors provide the ease and reliability of a hot shoe connector with the added benefit of integral EMI filtering. For this product, Spectrum Control also offers custom unfiltered versions.

- Rapid Mate Connectors

Additional Robotic Control Applications

Spectrum Control will support countless robotic control applications by eliminating or reducing EMI.

- Unmanned Systems: unmanned ground vehicles (UGV), unmanned surface vehicles (USV), unmanned underwater vehicles (UUV)
- Weapons and munitions
- Military robots
- Industrial drones