

NEW-GEN CONTROLLERS FOR ROBOTS

AB Dynamics has launched the next generation of controllers for its range of driving robots, offering significant enhancements in speed, stability and functionality. The new PowerDuo, PowerOmni and PowerDura controllers use the latest real-time control hardware, and replace the previous Mono, Omni and Dura controllers for new systems.



PowerDuo controller

KEY CONTROL AND SOFTWARE IMPROVEMENTS

Increased processor power

CPU speed is increased by more than 600%, coupled with a huge increase in onboard program memory. This has allowed us to add many new features and gives scope for further software development.

Ethernet connection to PC

Power controllers use an Ethernet connection rather than USB as previously, allowing faster and more reliable data transfer and eliminating Windows driver issues. Rugged LEMO connectors are now standard.

Higher data capture frequency

Maximum onboard data capture frequency is now 2kHz.

More triggering options

We've doubled the number of time-tolerance triggers available, and the software now allows triggering on a wider range of inputs and events.

Improved diagnostics and error handling

Test aborts and errors are recorded with precise time-stamps to allow full diagnostics.

MONO CONTROLLER BECOMES POWERDUO

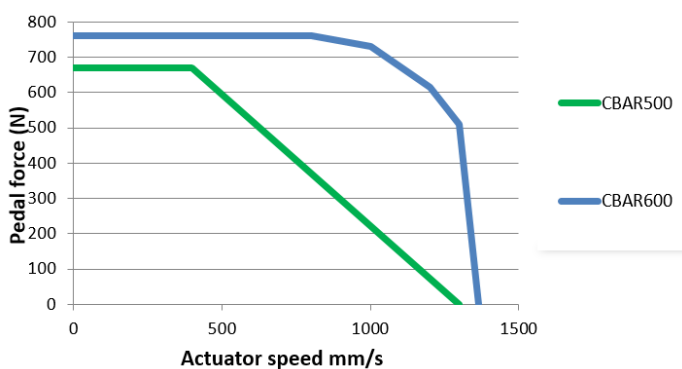
Two motion control axes in a smaller package

The new Power controller architecture allows us to offer the smallest ever two-channel controller, suitable for use with a steering robot and CBAR (combined brake and accelerator robot). This new PowerDuo design (*see picture on previous page*) replaces the previous entry-level Mono controller, giving control of steering and pedals without any increase in size over the Mono.

CBAR PERFORMANCE IMPROVEMENTS

CBAR500 becomes CBAR600 thanks to updated amplifier

By using a more powerful amplifier, we have improved the performance of the CBAR500, resulting in an increased maximum force, and a significant improvement in available force at higher speeds. New robots will be supplied with Power controllers fitted with the new amplifier, and an upgraded amplifier can be fitted as part of a Power upgrade to older controllers (at an extra cost).



POWERCAN

New generation CAN I/O; up to 8 times more channels

From 2017, robots with Power controllers can be fitted with the new PowerCAN cards, which are fitted with dual CAN buses. The PowerCAN card can handle 64 input messages and 64 output messages, eight times the capability of our previous CAN card. It's even possible to fit two PowerCAN cards in a PowerOmni controller, if you need more channels.

EXTERNAL-FOLLOWING VIA ETHERNET

Test your autonomous driving control software using our robots

We've added the ability to use data received over Ethernet for external-following tests (in addition to CAN and analogue data as previously), so you can use robots in "slave" mode to apply driving inputs commanded by your external control system.

GET IN TOUCH

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