Data sheet

Omnidrive Module (QBAA000)

This novel drive module combines translational movement and stearing in one module. The module can be used alone or in combination with other modules. Thus, synchronized stearing of an arbitrary number of wheels is possible as well as independent stearing of an smaller number of wheels.

Typical Applications

- Autonomous mobile platforms with 1 to N driven and steared wheels.
- Moving platforms with a lot of wheels for very high loads.
- “Intelligently” or force-driven moving systems (like sickbeds).

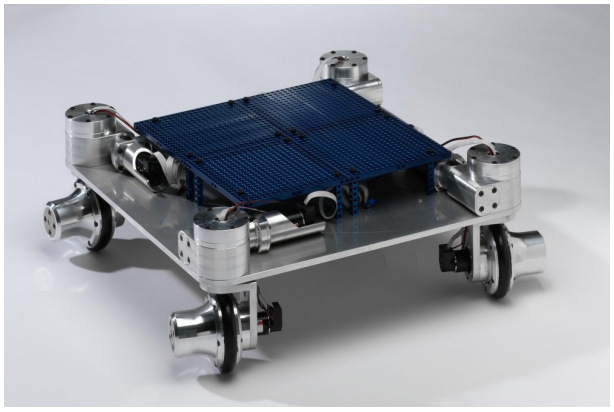
Properties

- Translation and rotation using Maxon DC motors
- Voltage 12V or 24V DC
- Translational motor output 90W to 150W
- Rotational axis with 360° continuous rotation
- Payload min. 30kg per drive module
- Size 25x18x25 cm (LxWxH)
- Driven by Maxon motor driver unit or qfix motor driver board.

Exemplary Applications

Rectangular Platform with 4 Omnidrive Modules

This mobile robot platform consists of four omnidrive modules which are mounted at the corners of a 60cm x 60cm quadratic base plate.



On top of the base plate, a flexible mounting plate lets the user attach additional hardware, like sensor systems or a manipulator.

Round Platform with 3 Omnidrive Modules

This platform is simmilar to the above one, but uses only three omnidrive modules. The modules are mounted on a round base plate with a diameter of 80cm.

The image shows an additional PC with a touch sensitive display and three Maxon motor driver units.

Semi-autonomous Sickbed

Coming soon...

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