

Application

Robonaut 2 (R2) is a state of the art, highly dexterous anthropomorphic robot. The robot is designed to work with humans and have the ability to use the same workspace and tools.

The robot joints incorporate dual encoders for **position** and **torque** feedback while performing in dynamic application, vibration, shocks and wide temperature range.

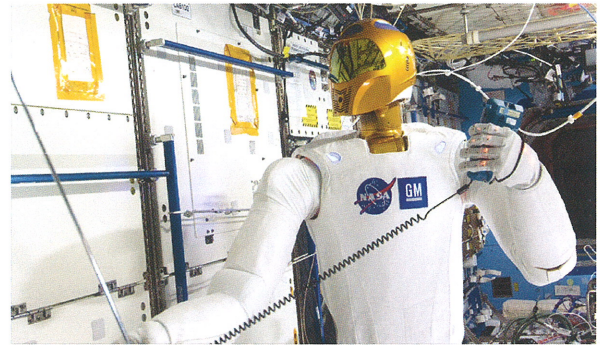
Requirements

- Hollow shaft
- High precision
- Low profile
- Torque control



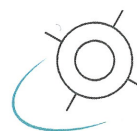
Position Sensor

- Out of the basic Netzer DS product line of Absolute Position Electric Encoder™, for such applications, special outgassing materials and housings are usually needed.
- Netzer ability to design, manufacture & test special designs.
- Compact, low profile, lightweight & wide bore: Allowing high level integration for a low profile arm joint design.
- Frameless & contactless with a negligible rotor weight: No mechanical parts operating, resulting in a long-lasting operational time, introducing no extra weight & inertia (load) to the system.
- Immune to magnetic interference: Can be very close to the frameless motor magnets.
- High resolution 19 bit & accuracy < 0.010deg for very low speed & step moving accuracy with high repeatability of on stand still positioning of 1 count.
- Standard digital Serial interfaces, SSI, BiSS.

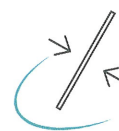


R2 and the STS-133 Crew

Product Features



HIGH PRECISION



LOW PROFILE



HOLLOW SHAFT



RESISTANCE TO
MAGNETIC FIELD

● *Moving. Precisely. With You.*