



Quick-Connect Robotic Platform

OTT 1841

Applications:

Designed for use in various robotic applications, including industrial automation, healthcare robotics, and research laboratories. It is particularly valuable in settings where robotic arms need to be frequently moved between workstations.

Target Problem:

Robotic arms are used in many applications, and in some cases, they need to be portable to be used across multiple workstations. Traditional mounting configurations can be time-consuming and inefficient, leading to operational delays and increased labor costs.

Solution:

The Quick-Change System is a mounting apparatus designed to expedite the seamless attachment and detachment of robotic manipulator arms to the robot's base platform, optimizing operational efficiency and reducing costs. This system enhances flexibility and ease of use in real-world applications. It has been designed, simulated, manufactured, and tested. The UW-Milwaukee Bio Robotics Lab has actively utilized this system for efficient installation and uninstallation of robotic arms involved in tasks such as mounting wheelchairs and tables. It has proven to be a significant time and effort saver during experiments conducted in the lab.



Key Benefits:

- Reduces time required for mounting and unmounting robotic arms
- Enhances operational efficiency and flexibility
- Ensures reliable performance and adaptability for various tasks
- Lightweight aluminum components balance structural integrity and weight considerations
- Minimizes labor costs and improves productivity

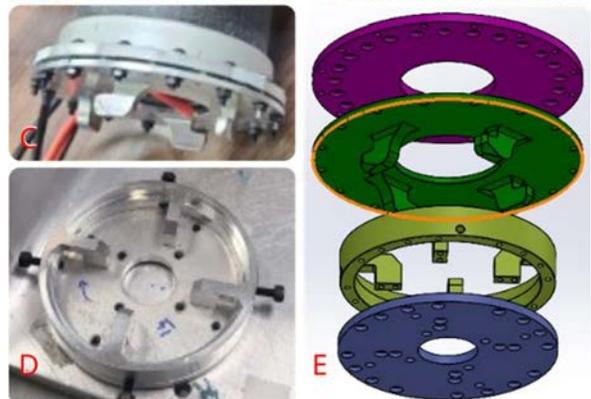
Stage of Development: To enhance its functionality, a second prototype with modifications is being manufactured, aiming to further optimize the system based on practical usage insights.

Partnering Opportunity: RoboHeal Innovations (<https://roboheal.net/>) has an exclusive option agreement with the UWM Research Foundation to evaluate this technology for licensing. Together, the parties are working to find additional partners to develop the technology into a final product.

Intellectual Property: Patent pending.

About the Inventor(s):

Habib Rahman, PhD, Professor and Chair, Mechanical Engineering, UW-Milwaukee, Founder & CEO RoboHeal.



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