# Sustainable, Competitive Advantage

- Access to academic research facilities at MIT and close collaboration with several top notch institutes around the world.

- The Vishwa Robotics team comprises of a diverse group of intellectuals with talents in art, architecture, and the sciences with qualifications in a variety of advanced engineering fields such as robotics, aerospace, ocean, electrical, mechanical, materials, computer science etc.

- Low cost, rapid prototyping, DARPA style high risk, high payoff research

# **Special Facilities**

- Miniaturized electromechanical, fluidic and other advanced robotics mechanisms and actuators manufacturing

- Robotics testing capability

- Major R&D think tank located in the innovation hub of the United States with MIT, Kendall Square, Cambridge, MA



Vishwa Robotics is located near the MIT main campus in Kendall Square Cambridge, MA.

## Contact Us

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#### BETTER THAN BIOLOGY



#### **BETTER THAN BIOLOGY**





## **Company History**

Inspired by biology and with a tendency to improve and demystify the very fundamental workings of nature, Vishwa Robotics was started by research engineers and scientists trained in organizations including NASA and the Massachusetts Institute of Technology (MIT). Vishwa Robotics offers several new cost effective robotic products that will significantly improve the performance of state of the art robotics in renewable energy, health care, automation, defense and exploration. Our research has been featured in articles in many journals including the following publications: National Defense Magazine, Janes Defense, National Geographic, Scientific American, Popular Science, and Popular Mechanics.

#### Value proposition

Vishwa Robotics has developed many cost competitive robotics technologies. Currently we are offering the Vishwa Extensor, a human-like robotic hand with many degrees of freedom at an equivalent price of robotic claws. This anthropomorphic robotic grasper is adaptable to a variety of robotic vehicles and body suits. It introduces novel robotic features and near-human capabilities enabling safe and dexterous manipulation in extreme environments (sea, space, nuclear, explosive, contaminated, etc.). The Extensor can be attached to any available robotic vehicle for use on land, underwater or in space.

## **R&D** Program Areas/Divisions

- <u>AERO/ASTRO</u>: Focuses on designing and demonstrating robotic systems using flight tests in relevant environments including Micro Aerial Vehicles (MAV), new rotor craft, aircraft, new spacecraft propulsion systems and nanosatellites.

 <u>AUTO</u>: Focuses on high speed and high precision micro positioning robots for various applications in Semiconductor manufacturing, Aerospace, Microscopy, Medical scanning, University research, automotive testing and manufacturing, and Military projects.

- <u>BIO</u>: Focuses on advanced neuromechatronic (portmanteau of neuroscience and mechanical engineering and electronics) machines that form a synergistic interface between humans and robots to improve human physical capability and reduce metabolic cost of musculoskeletal energetics.

- <u>ENVIRO</u>: Focuses on novel energy harvesting renewable technologies including wave power, wind, hydrokinetics and solar.

#### VISHWA EXTENSOR



## Market/Customers

Our customers include the following Government agencies:

- US Army
- US Navy
- US Air Force
- NASA
- DARPA

Vishwa Robotics has working relationships with many Tier One military suppliers including:

- Boeing
- Lockheed Martin
- General Dynamics
- Moog
- Parker
- Google
- Amazon
- Intel

Vishwa Robotics has customers worldwide. Services such as design and development are available only for the US Government.

