



UNIVERSITY of WASHINGTON

MECHANICAL ENGINEERING, MECHATRONICS & ROBOTICS

ASSOCIATED FACULTY

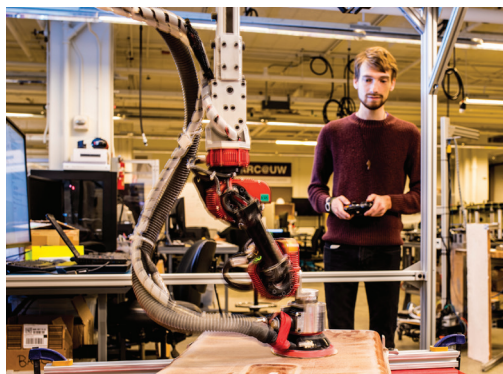
Ashis Banerjee
Steve Brunton
Santosh Devasia
Brian Fabien
Sawyer Fuller
Joseph Garbini
Jonathan T.C. Liu
Brian Polagye
Per Reinhall
Eric Rombokas
Eric Seibel
Steve Shen
Kat M. Steele
Andy Stewart

NOTABLE PARTNERS

The Boeing Company
PACCAR
General Motors
Amazon
VA Puget Sound
Nabtesco
Origincell
Janicki Industries
ElectroImpact

OVERVIEW

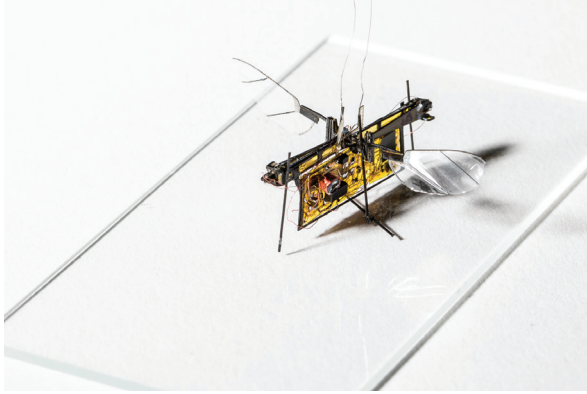
Mechatronics researchers in UW Mechanical Engineering are engaged in an array of groundbreaking projects at the intersections of mechanics, electronics and computing. Much of this work takes place in the area of robotics; our faculty are at the forefront of research in robot-human interaction, nanorobotics, automation and advanced manufacturing. The new devices, technologies, systems and processes being developed in our labs will have lasting impact on industries as diverse as health care, automotive, aeronautics, manufacturing and information technology across the state of Washington and beyond.



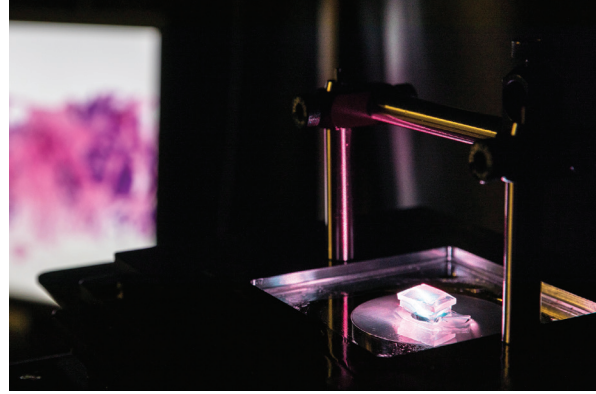
KEY RESEARCH AREAS

- Robotics and human interaction
- Robotics for manufacturing
- Controls and system dynamics
- Sensors and actuators
- Compatible nanorobotics for human health
- Augmented and virtual reality
- Prosthetic devices
- Autonomous systems

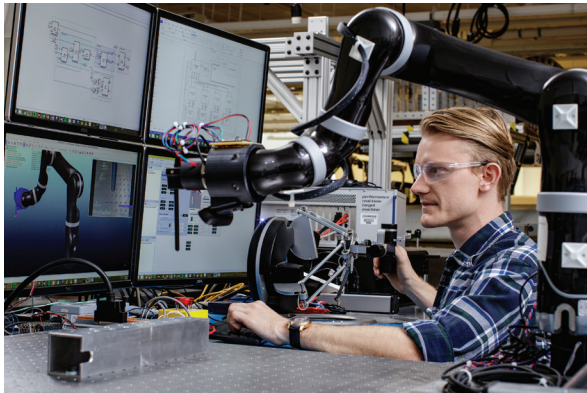
RESEARCH HIGHLIGHTS



The **Autonomous Insect Robotics Laboratory** develops technology aimed at insect-sized robots to create tiny robots capable of sensing and performing in the world without a human operator.



ME faculty are advancing the field of **photonics** through innovations in imaging technologies, optical scanning, molecular imaging, biomedical diagnostics and instrumentation.



Boeing Advanced Research Center pairs full-time Boeing engineers with students and professors to develop solutions for aerospace products in robotics, automation and aircraft assembly.



Focused on amplifying human and robotic interaction, the **AMP Lab** is advancing understanding of the dynamics and control of movement to design treatment strategies and assistive technologies that improve function, performance and quality of life.

AWARD-WINNING STUDENT TEAMS

Husky Robotics designs, builds, programs and competes Mars Rovers in simulated missions while providing students with experience in machining, circuit design, coding and project management.

EcoCAR is converting a 2019 Chevrolet Blazer into a self-driving hybrid electric vehicle for a student competition sponsored by General Motors and the U.S. Department of Energy.

HuskyADAPT works with the community to modify toys and codesign innovations to improve the lives of individuals with disabilities and support inclusive play for all.

STARTUPS

Companies resulting from recent ME faculty and student research include:

LightSpeed Microscopy Inc. is developing 3-D microscopy technology to enable nondestructive slide-free pathology of clinical specimens for better disease treatment.

Olis Robotics is a software company pioneering new technology for better control of augmented robotics.

VerAvanti is developing a laser-based medical camera to help cardiologists better diagnose and treat individuals who are at risk for stroke and/or heart attacks.



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Box 352600 • Seattle, WA 98195-2600
(206) 543-5090 • mechair@uw.edu
www.me.washington.edu