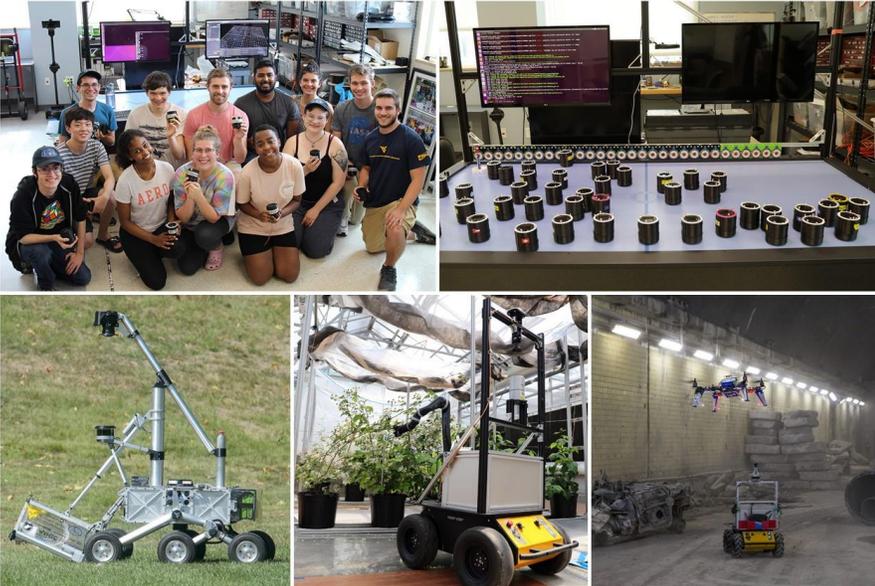




NSF REU SITE

HUMAN-SWARM INTERACTION

SUMMER RESEARCH
OPPORTUNITY IN ROBOTICS
@
WEST VIRGINIA UNIVERSITY



Photos: NASA, WVU

Program Dates

- May 17 – July 24, 2020 (10-weeks)

Eligibility/Qualifications

- US citizen, national, or permanent resident;
- Undergraduates enrolled at institutions of higher education (students from community colleges and primarily undergraduate institutions are especially encouraged to apply);
- Majoring in a robotics related discipline (e.g., engineering, computer science, applied math, physics);
- Grade point average of 3.0 or above;
- Students from underrepresented groups (e.g., women, minorities, first generation college students) are especially encouraged to apply.

Apply

<https://robotics.wvu.edu/nsf-reu-site>

Email questions to RoboticsREU@mail.wvu.edu

Application Deadline: **March 1, 2020**

About:

This NSF-funded Research Experiences for Undergraduates (REU) Site will support summer research in robotics. Each selected student will be supported with \$6,000 stipend, paid on-campus housing, food allowance, and travel expenses up to \$600.

The intellectual focus of this project is to allow one human operator to effectively manage a large robot swarm to achieve desired global objectives.

During the first-year program (Summer 2019), a swarm testing environment with 50 custom designed robots were developed, along with a simulator and agent-level interaction rules that allow basic swarm behaviors to emerge. The results were published in 2019 International Conference on Advanced Robotics (ICAR).

During Summer 2020, students will focus on developing and experimentally testing advanced interaction rules that can enable robot group foraging behaviors. Novel human-swarm interaction modes for managing a large self-organized robot swarm without using a direct command and control structure between the operator and robots will also be investigated.

