Program Dates and Format

- May 24 – July 30, 2021 (10-weeks)
- Either onsite or virtual, depending on the COVID situation

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 12, 2021 (for full consideration)

About:

This NSF-funded Research Experiences for Undergraduates (REU) Site will support summer research in robotics. Selected student will be supported with $6,000 stipend. Depending on the COVID situation, on site participants would be supported with 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 robot interaction rules that allow basic swarm behaviors to emerge. The results were published in 2019 International Conference on Advanced Robotics.

The 2020 program was canceled due to the COVID-19 pandemic.

During Summer 2021, 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 will also be investigated.