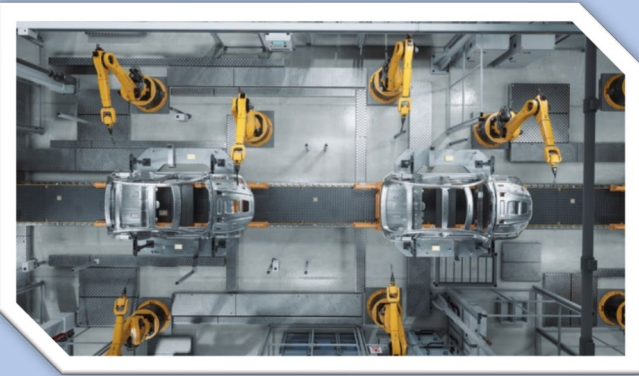


# Summer Research Experience for Undergraduates

May 19 – July 27, 2024



The NSF-funded Hybrid Autonomous Manufacturing Moving from Evolution to Revolution (HAMMER) REU program involves a wide range of research projects where students will learn to address scientific issues including concepts from **Design, Tools and Process Convergence, Materials State Awareness and Control, Intelligence, and Autonomy**, to develop multi-tool hybrid autonomous manufacturing systems that can create a variety of components with assured quality. The key construct here is an Autonomous Fabrication (Auto Fab) cell that can select, house and use multiple kinds of tools in one environment.

Students will participate in professional development activities focusing on preparing for graduate school and research related careers. They will also participate in peer networking and social activities. Successful REU applicants will be paired with a faculty mentor from among HAMMER's Research Thrusts and will perform research projects aligned with HAMMER's focal areas.

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This **10-WEEK UNDERGRADUATE RESEARCH PROGRAM** includes a stipend of \$5,000, reasonable travel costs, housing (dorm room – two people per room) and local bus transportation (if applicable at chosen site). Prospective students can choose between the following universities for this Research Experience with dates (if identified).

**The Ohio State University**, Columbus, OH 5/19/24-7/27/24

**Case Western Reserve University**, Cleveland, OH *Dates TBD*

**North Carolina Agricultural & Technical State University**, Greensboro, NC *Dates TBD*

**Northwestern University**, Evanston, IL *Dates TBD*

**University of Tennessee, Knoxville**, Knoxville, TN *Dates TBD*

Summer REU 2024 Calendar- Coming Soon



### Applications:

A complete application packet includes:

(1) Complete the attached [survey](#).

Prior to opening the survey, **please have your responses prepared for the following prompts**

**(Recommended length: 200-500 words for each prompt):**

- Experience: Please describe your previous laboratory or other research experience, if any. Include practical experience, e.g., electronics, computer repair or programming, etc.
- Goals: Please describe your career goals and plans after completion of Bachelor's degree. Also, explain how your previous experiences and the REU program will help you achieve them.
- Scientific Area of Interest: Please explain what sort of research interests you, so we can match you with a suitable advisor. We recommend that you check our HAMMER website to see what our faculty are doing and suggest projects that look particularly interesting. Please start on this page: <https://hammer.osu.edu/research-thrusts> to see the work we are doing. This choice will affect which of the 5 universities would best suit you and your area of interest, so please state your preferences for project and campus.
- Please describe your reasons for applying for this program. In this essay, you might include any personal circumstances, e.g. financial need, family support, etc. that make this program particularly appealing. You may wish to explain here any special circumstances that the transcript does not adequately represent.

(2) An Official Undergraduate Transcript (either mailed to 2136 Fontana Labs, ATTN: Jennifer Fillinger 140 W. 19<sup>th</sup> Avenue, Columbus, Ohio 43210 or emailed to: [fillinger.33@osu.edu](mailto:fillinger.33@osu.edu))

(3) 2 Letters of Recommendation submitted on official business or university letterhead to [fillinger.33@osu.edu](mailto:fillinger.33@osu.edu) or the address above.

For first consideration, please submit applications by **March 1, 2024**.

### Eligibility Requirements

**US citizen or permanent resident enrolled in an undergraduate degree program in Materials Science, Integrated Systems, Computer Science, Mechanical Engineering or other Applicable Engineering program. Members of groups under-represented in engineering are especially encouraged to apply.**

OSU and HAMMER ERC are committed to the full inclusion of individuals with disabilities. The ADA Coordinator's Office is a resource and referral point for disability-related information, services and resources. You may view their website at <http://ada.osu.edu>; email them at [ada-osu@osu.edu](mailto:ada-osu@osu.edu) with any questions. If you are choosing an REU at a site other than OSU and need ADA information, please contact Jennifer Fillinger at [fillinger.33@osu.edu](mailto:fillinger.33@osu.edu) and she will connect you with the proper contact.

**Questions? Contact Jennifer Fillinger ([fillinger.33@osu.edu](mailto:fillinger.33@osu.edu))**