

U.S. Army Institute of Surgical Research

2021 Virtual Summer Undergrad Research Program - Request for Intern – ISR-EPPD-01

Department: Engineering Processes and Product Development Group (EPPD)

What are your expectations for the student?

Student is expected to be highly motivated, independent, and proactive during their internship.

How would the student benefit from working on your project:

Student will learn hardware/software development, design, and usability testing for advance medical technologies.

Brief project description (please list the skills and techniques they will learn):

Our group is working on generating a proof-of-concept, next generation tourniquet system that will be used in future far forward environments. The tourniquet will incorporate intelligent algorithms along with sensors that can be tested in simulation manikins to stop hemorrhage. We are collaborating with industry partners and end-users to develop the device requirements and then test the device for effectiveness, safety, and usability. The student will learn about tourniquet hardware development, 3D fabrication, algorithm development, and basic knowledge of human physiology. Student will also learn about survey development, data analysis, and regulatory processes for device development.

Would you be interested in advising the intern for writing an abstract for a conference proceedings publication (example at the link below)? **Yes**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5773900/>