



3:00 pm

SHARP

Team Members: Brayden Anderson (ME), Dylan Bollone (CE), Andrew Goodrich (EET), Jadon Lawlor (EET), Nathan VanAntwerp (ME)

Faculty Advisor: Dr. Robert Hildebrand **Company:** Enstrom Helicopters **Industrial Contacts:** Jason Janquart

Project Description: Team SHARP (Superior Helicopter Airframe Rotation and Positioning) will design and build a system capable of positioning a helicopter in multiple axes. The system will be able to precisely orient a fully loaded helicopter in order to safely and efficiently calibrate its fuel system; in addition, the system will have the speed and range of motion required to be used as the basis for a flight simulator.



3:30 pm

GAS

Team Members: Jordan Brown (ME), Triston Forgrave (EET), Jacob St. Onge (EE), Landon Westerby (RE)

Faculty Advisor: Dr. Edoardo Sarda **Company:** Greenwood Foundation **Industrial Contacts:** Ty Ratliff

Project Description: Team G.A.S. (Greenwater Assault Systems), is partnering with the Greenwood Foundation, and will be upgrading the existing WaterBug aquatic vegetation harvester to operate autonomously while maintaining its current manual operation capabilities. The system will allow users to create harvesting paths for the WaterBug to follow while autonomously cutting and collecting aquatic vegetation. The project will incorporate autonomous navigation, payload monitoring, and a simple user interface to reduce the time and manual operation currently required for aquatic vegetation management.



4:00 pm

ARC3D

Team Members: Brett Carr (EE), Zac Heslip (Mech), Ben Lockwood (Mech), Josh Rogers (ME), Jonathan Tischer (MfgET)

Faculty Advisor: Prof. Jim Devaprasad **Company:** 4D Systems **Industrial Contacts:** Philip Nicholson

Project Description: Team ARC3D, in partnership with 4D Systems, is developing an innovative robotics system that transforms a standard KUKA MIG welding robot into a dedicated 3D printing cell. By using Wire Arc Additive Manufacturing (WAAM) techniques, the project will also investigate and determine the most effective weld and robot parameters to eventually demonstrate how to fabricate solid 3D objects.



4:30 pm

VOLT

Team Members: Gavin Corey (ME), Brendan Kroll (EE), Trey Nieman (RE), Houghton Svoboda (ME)

Faculty Advisor: Prof. David Leach **Company:** Convergix Automation **Industrial Contacts:** Noah Murray

Project Description: Team VOLT (Vision Optics and Lighting Trainer) will develop a vision cell validated through a pick-and-place robot. The primary goal is to create a testing environment for Convergix operators to experiment with lighting scenarios using tunable lighting fixtures and interchangeable cameras for training purposes.



Senior Design Projects

All of the Lake Superior State University senior engineering and engineering technology bachelor's students are required to complete a challenging senior design project. The students work in multi-disciplinary teams and use a composite of their technical and general education courses to successfully complete these projects.

2026-27 Senior Projects Faculty Board

This group serves as advisors, overseers, and guides to help the teams through their overall process:

Masoud Zarepoor(Chair), Jim Devaprasad, Robert Hildebrand, David Leach, Edo Sarda, Paul Weber, Trevor Bryant, and Derek Postma

Special thanks to Rebecca Kilponen

The School of Engineering & Technology comprises:

- Computer Engineering
- Electrical Eng Technology
- Electrical Engineering
- Manufacturing Eng Technology
- Mechanical Engineering
- Mechatronics
- Robotics Engineering



Welcome to the School of Engineering & Technology

Presentation Schedule

Team SHARP	3:00 pm
Team GAS	3:30 pm
Team ARC3D	4:00 pm
Team VOLT	4:30 pm

***Presentations will be in the
Cisler Center Crow's Nest***



**For more information about LSSU's
School of Engineering & Technology**
www.lssu.edu/eng or 906-635-2207



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The School of Engineering & Technology *presents the* Class of 2027



Scope Presentations

Wednesday • October 14th

3:00 p.m. – 5:00 p.m.

in the

LSSU Cisler Center Crow's Nest &

Zoom <https://lssu.zoom.us/j/98432763867>