You may sign up individually or as a team (if you sign up as a team, just submit one form for your entire team). All members must be from the same lab sectionComplete the form below and submit it as a .pdf by the deadline.

Team member 1
Name (first and last): Brandon Lim

Umail: u1244501@umail.utah.edu

uNID: u1244501

Team member 2
Name (first and last): Kelton McGrath

Umail: u1196273@umail.utah.edu

uNID: u1196273

Team member 3
Name (first and last): Gavin Sueltz

Umail: u1051204@umail.utah.edu

uNID: u1051204

Team member 4
Name (first and last): Shey Dilloway

Umail: u1288937@umail.utah.edu

uNID: u1288937

Lab Section: 004

Rank up to 5 choices for projects. We will do our best to provide you with one of your top choices, though you may be assigned to any project. List the project names as shown in the posted powerpoint on Canvas.

1st Choice
Project Name: Quadruped Robot for Smart Agriculture

Sponsor: Dr. Shad Roundy and Dr. Kam Leang

2nd Choice
Project Name: Robotics Lab Trainer

Sponsor: Dr. Yongzhi Qu

3rd Choice
Project Name: Methane Capture and Biomass Production Test Chamber

Sponsor: University of Utah Energy Accelerator

4th Choice
Project Name: Useful Robot Team 1

Sponsor: Randal Morrill and Andy Gill

5th Choice
Project Name: Desing and Optimization of Mechanical Inerter for Mitigation of Seismic Events

Sponsor: Dr. Pai Wang

Provide information on the skills you (or your team) provide that could be an advantage to your project (e.g., machining, FEA, personal interest)

Team Skills & Previous Accomplishments

- Spring 2024 Mechatronics 1st Place Team
- Conflict Resolution and Communication
- Optimism and Driven Work Ethic

Individual Skills

- Gavin Sueltz
    - Through my current internship position at American Oxygen, I've refined skills such as programming, manufacturing, prototyping and communication. I enjoy electrical circuit design and prototyping as well. I am taking classes such as FEA and Classical Controls this semester, and I hope I have the opportunity to apply

these in the senior design project. I have a passion for robotics and controls and hope to find a career doing this work.

- Brandon Lim
    - Through my internship position at the Department of Defense, I've gained experience and knowledge in design, manufacturing, prototyping, drawings, tolerances and teamwork. I am passionate about robotics, design, and analysis. I'm taking classes in Classical Control Systems and Aerodynamics this semester where I believe the culmination of knowledge throughout my undergraduate experience will contribute to my success on this senior project.
- Kelton McGrath
    - I was fortunate to be able to intern with NASA over the summer, where I developed an optimization algorithm to find the best solid-state architecture cathode composition. This provided me with valuable experience in Linux and built my Python skills to new heights. It taught me how to gather data and present the results, how to work together with many people as part of a team, and how to craft a deliverable that holds to someone's expectations. I performed as the head programmer for our mechatronics team last semester, developing the overarching structure of the code. I'm currently taking Classical Controls and Intro to Robotics this semester. I'm familiar with the Raspberry Pi / Orange Pi environments and have had a small introduction to ROS.
- Shey Dilloway
    - My two strongest skills are designing through SolidWorks and using FDM 3D printers for fabricating parts. My team's winning robot from the Mechatronics competition is a good example of these skills. We constructed the frame and shell of the robot out of more than 35 3D-printed and laser-cut parts, all of which I designed in SolidWorks. I have a good understanding of designing complex multi-part models that can be easily fabricated with the limitations of additive manufacturing. The robot is in a glass display case on the third floor of MEK if you'd like to see it. Additionally, I'm taking an FEA and an additive manufacturing course this semester which will equip me with knowledge I can apply to this Project.