

## Objectives of the Program

- ❖ To increase industry/university collaboration within the context of a specific product need.
- ❖ To introduce students to current “best practices” in industry for design and manufacturing.
- ❖ To help students grow their teamwork, communication, and project management skills.

## Benefits to the Sponsor

- ❖ Interact with undergraduate students, graduate teaching assistants, and engineering faculty with expertise in your field.
- ❖ Observe potential student hires that could help meet future recruitment needs.
- ❖ Provide students with a first-hand view of corporate life, thereby increasing future job retention.
- ❖ Receive technical reports, drawings/schematics, and a working prototype.
- ❖ Receive IP generated by project through signed UI Sponsored Educational Activity Agreement.

## Role of the Client

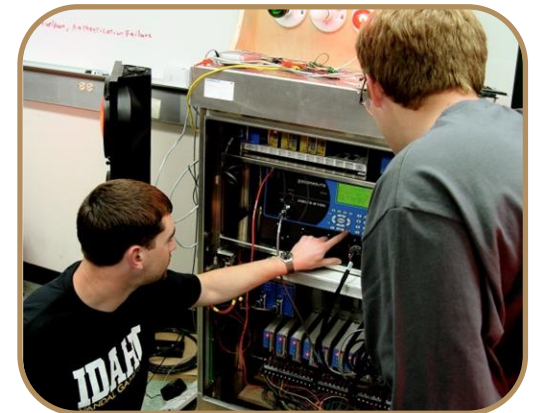
- ❖ Supply an engineering project that students can design, prototype, and test in 700-1,000 person-hours of effort over a period of 8 months.
- ❖ Provide feedback to the students.
- ❖ Offer an appropriate financial donation to support the project.
- ❖ Participate in two design reviews as well as the final project presentation (at UI Design Expo).
- ❖ Offer advice for course improvement.

## Characteristics of a Good Project

- ❖ Has support of an industrial contractor interested in the project and in working with the students.
- ❖ Has significant technical content appropriate for engineering seniors.
- ❖ Is a stand-alone, non-critical-path product that meets a specific need.
- ❖ Emphasizes creative use of existing technology.
- ❖ Results in a prototype (or design) that can be manufactured, preferably in UI shops and labs.

## Project Budgeting

- ❖ Projects need to be identified, scoped, and budgeted by August 1.
- ❖ Funds are required to support travel to the company by all team members, instructor, and mentor for a kick-off customer interview and for progress reports throughout the year.
- ❖ Funds are needed for all raw materials, purchased components, and consumables associated with class presentations.
- ❖ A contribution is necessary for shop and lab equipment usage that goes toward annual upkeep, regardless of project size or complexity.
- ❖ Projects with budgets less than \$4000 are usually too small to meet class objectives; project budgets exceeding \$15,000 may be too large.



## Recent Projects\*

Drain Pan Defrost System  
Guided Parafoil System  
Hybrid Electric Racecar  
Automated Pin Inserter Device  
Vandal Marching Band Drumset  
Robotic Arm Rehabilitation Device  
Tensegrity Robot  
Traffic Controller Customization  
Autonomous Submarine  
Robotic Work Cell  
Water Filter for Rural Africa

\* An archive of over 300 past projects during the last 20 years is viewable at [www.mindworks.shoutwiki.com](http://www.mindworks.shoutwiki.com)



## Recent Sponsors

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## Inter-Disciplinary Capstone Design

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....A **collaboration** with external clients on authentic product realization as well as process realization projects