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 professionally by providing a focus for developing teamwork, communication, and project management skills.

Benefits to the Company

- Interact with undergraduate students, graduate teaching assistants, and mechanical 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 produced by your student team.

Role of the Company

- Supply an engineering project that students can design, prototype, and test in about 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.
- Attend final project presentation during the Design Expo held in April on the University of Idaho Moscow Campus.
- 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.
- Requires little or no research, i.e. uses existing technology.
- Results in a prototype that can be manufactured in UI shops and labs.

Project Scope and 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**

- Atmospheric Descent Probe
- Battery Box Environmental Control
- Electrosurgical Test Apparatus
- Hot Cell End Effector
- Hybrid Electric Racecar
- Impact Tester for Handhelds
- Miniature Shock Tester
- Interferometer Alignment System
- Intelligent Chess Board
- Small Scale Hydro Optimization
- Tensegrity Robot
- Traffic Controller Customization
- Phase Shifting Tap Changer
- Water Flume Instrument Carriage
- Water Filter for Rural Africa

**Recent Sponsors**

- Advanced Input Systems
- Arthrocare
- Bechtel
- Biketronics
- Blue Water Technologies
- Boeing Company
- Cypress
- Idaho National Laboratory
- Idaho Power
- Idaho Space Grant Consortium
- Itron
- NASA
- NIATT
- Office of Naval Research
- Power Engineers
- Sandia National Laboratory
- Schweitzer Engineering Laboratories
- US Department of Agriculture

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