

# Chico State Capstone Design Program – Project Request Document

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<b>Project Title:</b>	<b>Automated Brew House</b>			
Sponsor:	IMTech (Industrial Maintenance Technologies)			
Suggested team make-up:	Mechanical students:	40 %	Mechatronic students:	60 %

## Background:

The cost for scalable automation systems in the current market limits the amount of businesses that can afford to utilize its benefits. With the rising cost of labor, micro brewers are such users that could greatly benefit from having access to this automation in a low cost form. Currently systems that are available for pico and micro and home breweries are standalone and not easily customizable or expandable. Expansion results in completely replacing the existing equipment with new equipment which is a very large expense, especially for smaller companies and startups.

## Statement of Work:

Design, build and test an automated brewing system that is easily scalable from the smallest pico brew system to a larger commercial system using industry standard equipment. This brew house must use a standard library of functions developed during this project for Valves, Motors, Temperature transmitters, etc. All manual phases, including cleaning of the brewing process should be automated. Detailed equipment requirements and software specifications will be determined in consultation with the sponsor during the design phase of the project.

## Contact information:

John Ward  
IMTech  
4450 Enterprise St.  
Fremont, CA  
Mobile: (408) 476-8885 (Primary)  
Office: (510) 226-7558 Ext #1  
john@imtechdirect.com

Shawn O'Brien  
IMTech  
4450 Enterprise St.  
Fremont, CA  
Mobile: (408) 309-3666 (Primary)  
Office: (510) 226-7558 Ext #3  
shawn@imtechdirect.com

**Additional Information:**

A standard non-disclosure and ownership agreement will be required. Students will not be required to work on site, but will need to travel to the home office in Fremont, CA at least twice during the duration of the project.

**Corporate Overview:**

IMTech is an automation system integrator located in Fremont, California. The company sells industrial motors, automation software/support for new and existing systems as well as turnkey equipment maintenance services to large industrial customers, predominantly in the mining and manufacturing industries. Customers are primarily based in Northern California, although the company services customers throughout California and Nevada.

