

Senior Design Project Idea: Automated Home Brewery

Goals: To design an automated home brewing system that is able to collect necessary data to improve the overall final product. Since brewing beer is time consuming, trial and error is a lengthy process. Collecting as much data as possible about the brewing conditions helps eliminate variables and identify weaknesses in the process. Some of these variables are temperature, flow rates, pH, exposure to light, and carbon dioxide output.

Objectives:

1. Collect as much data from the process as possible.
2. Log all data.
3. Control the process with limited human interaction.

Features:

1. Sensor array to collect data from the system regarding specific target variables. (temperature, pH, fluid levels, CO2 emission, flow rates etc.)
2. User interface for system control.
3. Data logger of some kind.
4. Automated process from start to finish.