

Liquid Controller

Client: *Ian Bird, Ph.D*

Team Members:

Steve Welch (Leader)

Joe Decker (Communications)

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9/12/08 – 9/18/08

Problem Statement:

Currently, reagents are added manually when testing cell signal functioning under a microscope. This leads to problems regarding accuracy of timing and amount. To resolve this issue, an automatic system is desired. This system will use pumps controlled by a computer interface to precisely deliver required reagents.

Last Week's Goals

- Meet with client – 1:00 pm Friday, September 12, in Meriter Hospital lobby
- Initiate background research
- Brainstorm design ideas

Summary of Accomplishments

- Met with client
- Learned specific aspects and goals of project
- Initiated background research on valve systems
- Brainstormed several ideas for design
- Wrote rough draft of PDS

This Week's Goals

- Meet with client – 12:00 pm Friday, September 19, in Meriter Hospital lobby
- Order two-way voltage controlled valve for additional research and development
- Control valve with simple battery system (solidify fundamental design)
- Obtain additional supplies needed for valve function, including syringe, battery, wiring, and HPLC 1/12" diameter tubing

Project Difficulties

- More knowledge and expertise needed to ascertain the correct valve that satisfies the design's needs

