

Microscope Manipulator for Zebrafish Analysis

Week – October 14th, 2005 – October 20rd, 2005

Team Members : Joe Hippensteel – Team Leader
Evan Rogers – Communications
Chris Webster – BSAC
Jonathan Baran – BWIG

Client :

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Problem Statement

Our goal is to develop required devices and techniques for a zebrafish embryo imaging and irradiation research project. The initial stage is developing and constructing a working prototype of a digital micromanipulator to move the Petri dish of zebrafish embryos at a reasonable speed and precision to be able to develop a composite image of the entire dish. In addition, the zebrafish must be localized during the initial scan using standard digital imaging techniques. This information will be used to irradiate the fish and determine the presence of cell apoptosis and inflammation due to this radiation.

Last Week's Goals

- Begin fusion of disparate programs
- Determine most cost efficient method for stage manipulation
 - Commercial or custom?

Accomplishments

- Began software fusion

- Determined some possibilities of parts to use

This Week's Goals

- Meet with client to discuss progress
- Understand direction of project

Difficulties

- Opening Visual Basic program
 - Seems to be a file missing

Activities/Accomplishments

Group Member	Weekly Accomplishments	Time (hrs)	Running Total (hrs)
Joe Hippensteel	Group meeting, class time, client meeting, micromanipulator research	5	37.5
Evan Rogers	Group meeting, client meeting, imaging research	5	37
Chris Webster	Group meeting, class time, client meeting, imaging research	5	37.5
Jonathan Baran	group meeting, class time, client meeting	5	39