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| The University Of Victoria |
| Film Transport Project |
| Weekly Project Report #5 |
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| **Team Manager for the Week:**  **Team Recorder:**  **Week:**  **Instructor:**  **Supervisor/Client:** | **Anderson Li**  **Andrew Bornstein**  **05/06/2012 - 12/06/2012**  **Dr. D Constantinescu**  **Mr A.Makosinski** |

# Progress Report

In this week the following tasks have been completed:

* Refined the film gate solidworks model. Changed dimensions into inches for easier machining.
* Presented the concept of the film gate to Rodney, our machinist, for advice and necessary changes to the design.
* Designed the coupler rod for the film reel up/outtake components
* Prepared approximately 70% of the machine shop drawings for parts to be machined for this project. Cleared the parts with the machine shop manager after some slight modifications.
* Submitted DXF files for CNC milled sprockets to the machine shop
* Started testing the transport mechanism stepper motor and the output LCD screen with some basic programs on the microcontroller.

# Issues

We are ready to begin machining our parts; however, we cannot get access to the machine shop facilities until next week.

Motors initially specified to rotate the film reels were found to be too weak to keep the reels moving; especially at low speeds. New motors were requested through the client along with an appropriate power supply.

After consulting with the machinist, several improvements and changes to the film gate design were brought up. The first issue is to change the radius of the tools to be larger. This allows the tools to cut the radius path instead of relying on the tool radius itself which is unpredictable. Another improvement to the design is to change the tensioning plates into blocks. This will guide the tensioner better and it is easier to machine. Finally, the thickness of the plate needs to be increased to improve the strength of the part.

# Next Week Agenda

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| Task | Task Lead |
| * Create the Solidworks drawings for the film gate and machine the part. * Start designing a frame to put all the parts together * Draw programming schematics. * Testing the IR sensor and relflective sensor for the accuracy of the film drive. | Anderson Li |
| * Machine all sprocket components * Prepare drawings to mount the new DC motors running the film reels * Prepare drawings for the pulley couplers moving the film reels * Begin preliminary work on designing the control system for the transport mechanism * Wire a PWM circuit for the new DC motors turning the film reel. Brainstorm some control system ideas | Andrew Bornstein |

# Gantt Chart

