

# EE 491 Weekly Report

## DEC15-10 IVend Product Delivery Sensor Design Analysis

**Advisor: Dr. Zhengdao Wang**

**Client: Fawn Engineering**

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### Members (roles):

Tyler Westberg (Team Leader)

Jacob Olstad (Communication Leader)

Tim Howell (Webmaster)

Steve Dorenkamp (Webmaster)

Seth Schmidt (Concepts Holder)

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### Weekly Summary:

This week we went through and did testing on the product to find for ourselves what the problem is. We also began to assign tasks to progress the project.

### Group Meeting 2/26:

Duration: 3 Hours

Members: Jacob Olstad, Steve Dorenkamp, Tyler Westberg, Tim Howell, Seth Schmidt

Notes:

Meeting to go through testing on the product. We discovered that reflections may not be the source of holes in the IR grid. We were able to find holes in a completely open container. We decided to further research ways to fully block IR light and to retest to be completely sure there are no reflections.

### Plans for next week:

1. Re test the product with all a way to completely stop IR reflections.
2. Continue work on our test fixture.
3. Get a better understanding of the firmware to understand how the product is handling voting on sensor input.

### Members Contributions:

Tyler Westberg: Team Meeting on Thursday to work on project. Completed laser cutting training on blackboard to create test board. Started AutoCAD files for testing board schematics.

Jacob Olstad: Team Meeting Thursday, Weekly report, Looking through documentation

meeting to work on test fixture

Tim Howell: Worked on testing the iVend system with the team on Thursday. Finished the team webpage and transferred it to the ISU servers.

Steve Dorenkamp: Team meeting to work on project and do our own trouble shooting. speaking with Dr. Kim about possible solutions, some of our ideas to the problem, and testing ideas

Seth Schmidt: Team meeting on Thursday, researched history of components used, updated Professor Wang on the problems we're facing and possible testing strategies, performed a simple "Aluminum Test" on Sunday to see if reflection from materials affects IR sensors (documentation to come)

### **Project Contributions:**

<u>Member</u>	<u>Time this week (hrs)</u>	<u>Time to date (hrs)</u>
Tyler Westberg	4	16
Jacob Olstad	5	19
Tim Howell	3	15.5
Seth Schmidt	5	15.5
Steve Dorenkamp:	3	10.75