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## EE 491 Weekly Report (DEC15-19)

### Week 13

**Project Title:** Efficient Measurement of Soil Microtopography to Aid the Verification of European Space Agency and NASA Satellite Observations of Soil Moisture

**Advisor:** Brian Hornbuckle **Client:** Brian Hornbuckle, ISU Agronomy and ECpE

**Members (roles):** Brant Walsh (Key concept Holder), Dillon McDowell (Team Webmaster), Yan Yao Chan (Team Leader, Team communication leader)

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### Weekly Summary

The group tested the hardware and worked on the document required for the presentation.

#### Meeting notes:

4/21 Group Meeting

**Duration:** 45 minutes

**Members Present:** All

**Purpose and Goals:** To discuss about the group presentation.

**Achievements:** The course instructor gave the class guidance on the upcoming presentation.

4/21 Group Meeting

**Duration:** 45 minutes

**Members Present:** All

**Purpose and Goals:** To test the hardware.

**Achievements:** The hardware is set up and tested without errors.

4/21 Group Meeting with Dr. Hornbuckle

**Duration:** 20 minutes

**Members Present:** All

**Purpose and Goals:** To inform Dr. Hornbuckle of our progress.

**Achievement:** Dr. Hornbuckle acknowledged the progress on the senior design project. The group and Dr. Hornbuckle also came up with several ideas that can be useful in future development.

4/21 Group Meeting

**Duration:** 2 hours 45 minutes

**Members Present:** All

**Purpose and Goals:** To test the equipment and to work on the presentation document.

**Achievement:** The presentation document is almost completed and the Kinect is proven to be working as the data can be captured in real time and further processed through computer software. The preliminary testing structure is also built to test the system as a whole when ready.

4/23 Group Meeting

**Duration:** 1 hour

**Members Present:** All

**Purpose and Goals:** To complete the presentation document and work on the data processing software.

**Achievement:** The data processing software is tested and diagnosed to fix the output issues. The presentation document is updated with relevant information and project progress as well.

4/26 Group Meeting

**Duration:** 3 hours 15 minutes

**Members Present:** All

**Purpose and Goals:** To complete the presentation document and practice the presentation.

**Achievement:** The presentation document is completed and the group went through the presentation several times.

## **Pending issues**

The group has yet to give a presentation to the board of advisors and department in general.

## **Plans for next week**

To give a presentation about our senior design project and what the group has achieved throughout the semester.

## **Individual Contributions for this week**

Brant Walsh (9 hours 40 minutes) – Attended the weekly class session and group meeting. Worked on the presentation document and the preliminary testing structure.

Dillon McDowell (13 hours 10 minutes) – Attended the weekly class session and group meeting. Worked on the data processing software.

Yan Yao Chan (10 hours 5 minutes) – Attended the weekly class session and group meeting. Worked on the presentation document and completed the weekly report.

## **Total contributions for the project**

Brant Walsh (56 hours 30 minutes)

Dillon McDowell (49 hours 25 minutes)

Yan Yao Chan (45 hours 55 minutes)