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## EE 492 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

**Advisors:** Brian Hornbuckle, ISU Agronomy and ECpE; Josh Bertram, Collaborator  
Instructor

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

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

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### Weekly Summary

The group continues to work on the Kinect, the Odroid and the simple switcher circuits.

### Meeting notes:

11/16 Group Meeting

**Duration:** 4 hours 30 minutes (Brant Walsh), 4 hours 30 minutes (Dillon McDowell), 4 hours (Yan Yao Chan)

**Members Present:** All

**Purpose and Goals:** To work on the Kinect calibration and the simple switcher circuits.

**Achievements:** One of the two simple switcher circuits is put together and tested.

11/18 Group Meeting

**Duration:** 5 hours (Brant Walsh), 4 hours 20 minutes (Dillon McDowell), 4 hours (Yan Yao Chan)

**Members Present:** All

**Purpose and Goals:** To work on both the Kinect calibration and the simple switcher circuits.

**Achievements:** One of the circuits is finally soldered after it has been tested for its validity.

11/19 Group Meeting with Advisor

**Duration:** 25 minutes

**Members Present:** All

**Purpose and Goals:** To present the project milestones and current issues to the advisor.

**Achievements:** The group discussed every detail to the advisor and is to continue the project as planned despite some setbacks.

11/20 Group Meeting

**Duration:** 2 hours

**Members Present:** Brant Walsh, Dillon McDowell

**Purpose and Goals:** To work on the Kinect and the Odroid configurations.

**Achievements:** The configurations for both the Kinect and the Odroid are tinkered and improved.

### **Pending issues**

One of the required components for the simple switcher circuits has been damaged. As a result, the group has to order the same part, thus delaying the completion of the said circuits.

### **Plans for next week**

To hopefully receive the ordered part and store it temporarily with one of the group members if necessary.

### **Individual Contributions for this week**

Brant Walsh (17 hours 25 minutes) – Attended the meeting with the advisor. Worked on the Kinect scale calibration and the simple switcher circuits.

Dillon McDowell (11 hours 15 minutes) – Attended the meeting with the advisor and worked on the Kinect scale calibration.

Yan Yao Chan (8 hours 55 minutes) – Attended the meeting with the advisor. Worked on the simple switcher circuits and completed the weekly report.

## **Total contributions for the project**

Brant Walsh (70 hours 30 minutes)

Dillon McDowell (58 hours 20 minutes)

Yan Yao Chan (57 hours 35 minutes)