

# EE 491 Weekly Report

Week 13: 11/18-11/24

---

**Group:** *May14-03*

**Advisors:** *Dr. Sumit Chaudhary, John Carr*

**Client:** *ISU NanoLab*

**Members:** *Andersen, Martin; Diallo, Mouhamadou; Rodriguez, Nicholas; Straquadine, Joshua (Leader)*

**Project Title:** *“Design and implementation of cryogenic current measurements on organic photovoltaic cells”*

---

## Weekly Summary

This week we received the temperature sensors we ordered, and could finally start working with the cryostat again. We focused once again on the thermal mass issue, and trying to come up with a probe support and contact system which provides the right amount of force without warming the sample or subjecting it to radiative coupling. We also began connecting the instruments together through GPIB, paving the way for further progress in the software.

## Meetings

### 11/21 Lab Meeting

**Duration:** *3 hours*

**Members Present:** *All*

#### Purpose and Goals:

In this meeting we wanted to begin working with LabVIEW on the lab computer, communicate via GPIB, as well as further tweak our probe setup to ameliorate the thermal coupling problem.

#### Achievements:

- Discussed our options and requirements for ordering a new current meter
- Laid out the basis of the automation software
- Discussed a better probe assembly design to avoid the breakage issues we are experiencing.

## Pending issues

We feel like our project is going ok, but with the upcoming presentation, document revisions, and website (with which none of us have any experience) we're finding ourselves swamped and without time to go into lab. We're spending so much time going through the formal motions of the project that we aren't actually able to get very far in a given week. We're looking forward to the second semester, when we will all have more time to do the project.

## Plans for next week

Go home and eat turkey! And continue working on the software and other documents.

## Individual Contributions

- Andersen, Martin: Attended lab meetings, worked with new probe setup (5 hr)
- Diallo, Mouhamadou: Attended lab meetings, worked with new probe setup (5 hr)
- Rodriguez, Nicholas: Attended lab meetings, worked with new probe setup (5 hr)
- Straquadine, Joshua (Leader): Attended lab meetings, worked with new probe setup, worked on GPIB interface code in lab (9 hr)