EE 491 WEEKLY REPORT 6   **Date: 10/17/16**

May1733

Remote Wafer Testing

IBM, Geiger

Antonio Montoya, Team Leader

Braden Rosengren: Hardware Lead

Chris Little: Key Concept Holder

Christian Hurst: Web Master

Ben Wiggins: Communications Lead

o **<u>Weekly Summary (Short summary about what you did this week)</u>**

This week, IBM still hasn't got back to us so we are essentially booting them from the project plan from here on out. We talked to Professor Geiger about replacing the equipment that IBM would supply with equipment in the department, namely a wafer tester in one of the 3rd floor graduate labs. In order to figure out how to get it running we will be meeting with professor Neinhart and maybe a Physics grad student who have had experience using the wafer tester in the past. We also discussed how to test our project with Geiger and found out that the department has some TI op-amp wafers that we could use for testing, however they would have no need for the breakout PCB we planned to make. For now, we are planning to keep the PCB so and assume there may be wafers in the future that will need it. Finally, we have also decided to use Raspbian (because Buildroot is being buggy) to generate our webserver on the raspberry PI and we chose Python over Pearl to script all the test running and file IO.

o **<u>Past week accomplishments (please describe as what was done, by whom, when)</u>**

- Antonio Montoya: Continued to contact IBM contact. Met with Geiger to discuss scope of current project and the project plan. Researched Pearl.

- Christian Hurst: Loaded Buildroot onto Raspberry PI to find out it didn't work. Met with Geiger to discuss scope of project. Researched Python. Worked on project plan
- Ben Wiggins: Loaded Buildroot onto Raspberry PI to find out it didn't work. Met with Geiger to discuss scope of project. Worked on project plan. Talked with Neinhart about getting assistance with getting the wafer probe working.
- Chris Little: Researched Raspberry Pi interfaces for SPI and I2C, voltage variable level shifters.
- Braden Rosengren: Worked on project plan. Researched variable level logic shifters. Waiting on Raspberry Pi

o **Pending issues (if applicable)**
- Buildroot has a bug that prevents us from logging into the raspberry Pi. We are going to confirm that Raspbian has available framework for us to use for a webserver.
- We may need to partially redefine The hardware team's role now that we don't need to cater to IBM's requirements for the hardware.

o **Individual contributions**

NAME	Individual Contributions	Hours this week	HOURS Cumulative
Antonio	Oversaw team meetings	6	22
Christian	Program Plan and Build Root	7	18
Ben	Program Plan and Build Root	7	18
Chris	Formed Rough Draft of Hardware Plan	6	14
Braden	Formed Rough Draft of Hardware Plan	3	12

o **Plan for coming week (please describe as what, who, when)**

Hardware Team (Braden, Chris L., Antonio): Finish research on variable level shifters at voltage of 1.5V, 1.3V, 1.1V, 1V .8V. Pinouts to ADC with 10 bit resolution

Software Team (Christian, Ben, Antonio): Download HTTP webserver framework for Raspbian. Get basic file IO for the server set up. Help Finish project plan