Data Turbine Android Sensor Pod Taiwan Forest Research Institute (TFRI)
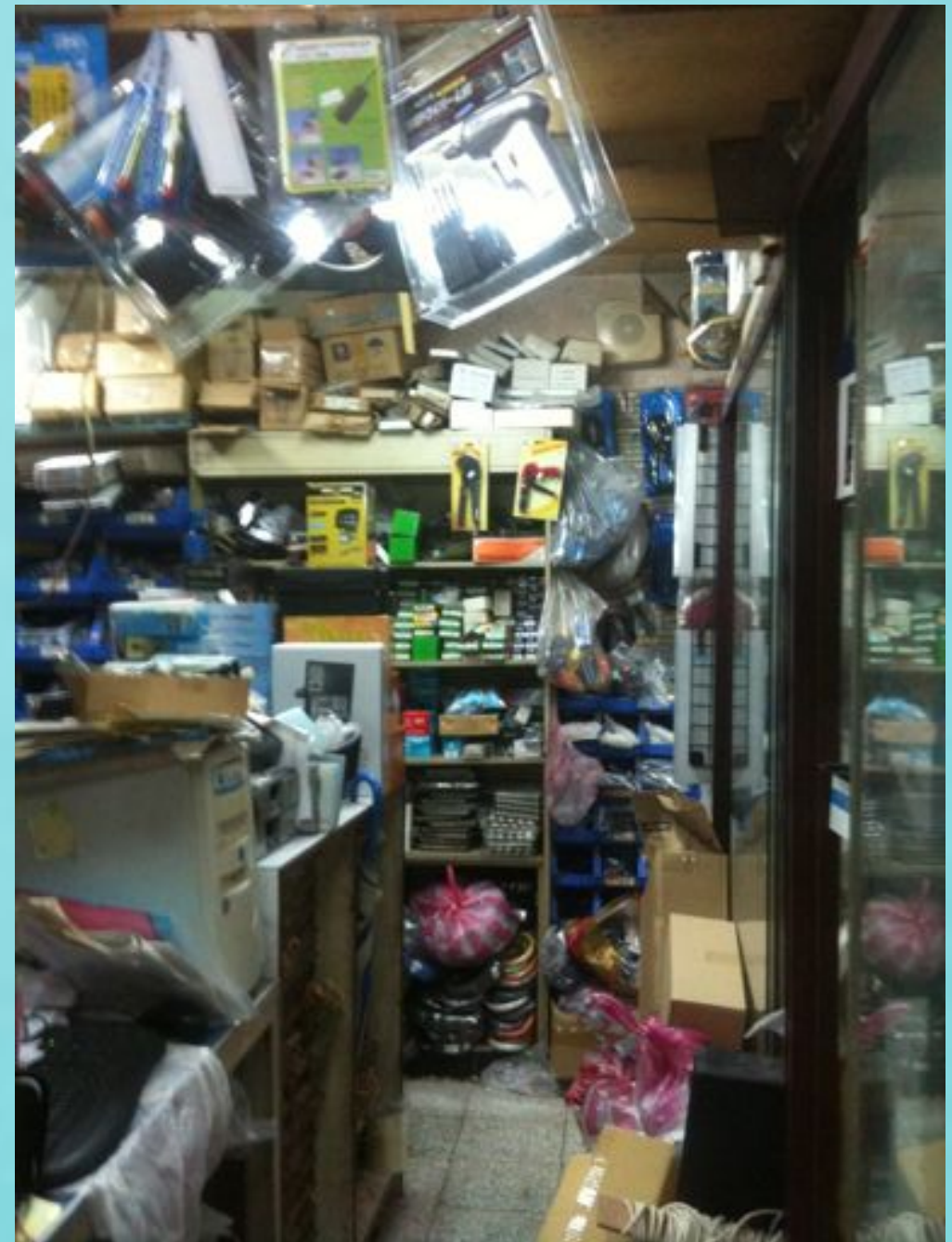
Sara Taghizadeh

August 10 ,2012

Project Proposal

▷ This project will assist researchers at the Taiwan Forest Research Institute (TFRI) in developing and testing an environmental monitoring system based on the Android platform and the Data Turbine software.

▷ As for my part, I will focus on integrating a weather station at the TFRI research station with the DataTurbine Android Sensor Pod developed by my mentor's research group at UCSD.

Progress

▷ Went to Nantou to find a suitable place to set up the system. As a result of our trip, it was decided to place the water proof box vertically and some adjustments has to be done to the box (i.e. Adding racks, shelves,etc.)

▷ Tested the board with both phones for two hours and were able to collect data and had no problem with battery loss

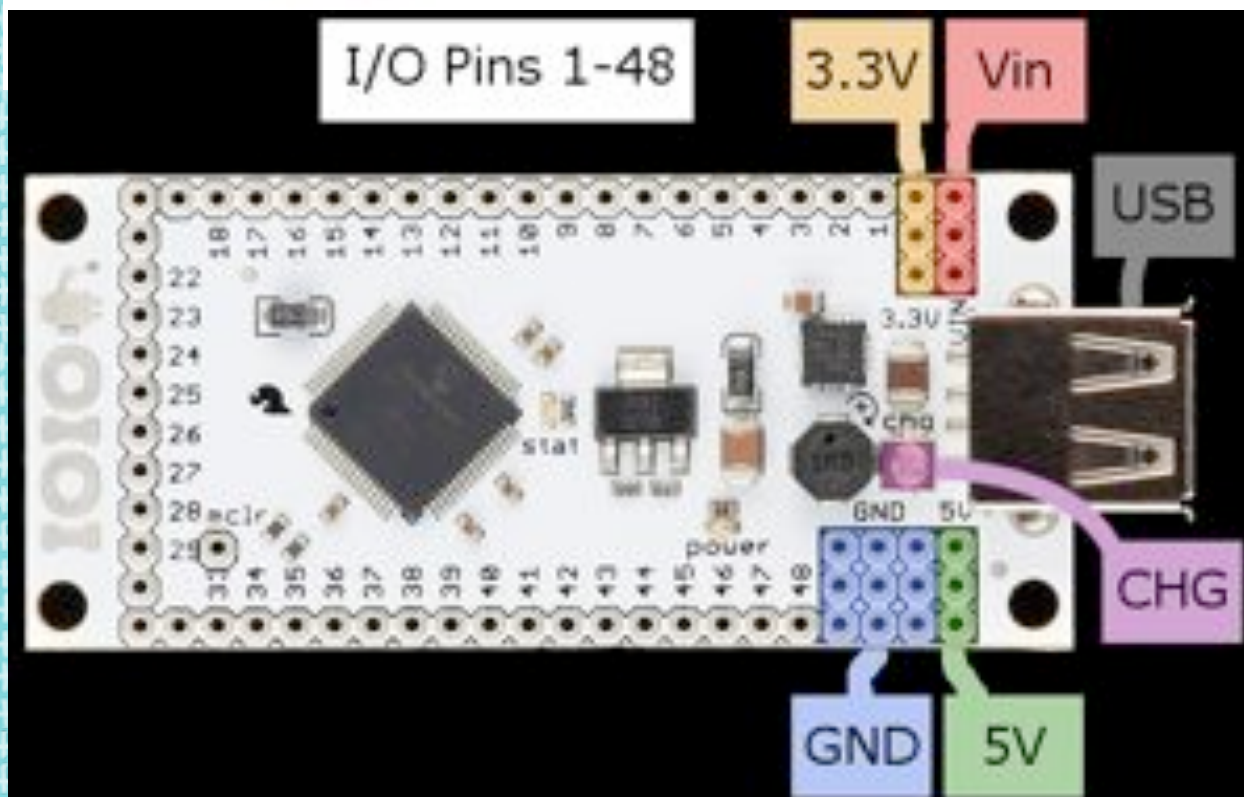▷ Went to the electronic store to buy necessary components to build 6 more boards with our TFRI team members

This place should be called : Electronics Heaven Store!

Goals for next week

▷ Leaving For Nantou for testing the system at the field station:
-Will use two solar panels and car batteries for providing power
-Will not use a surge protection for the panels but the WSP150 for Vaisala will be also installed

▷ Create a power point presentation on how each of the components of the board functions

▷ Go over the necessary steps on how to build the board and demonstrate

▷ Build more boards with the team at TFRI

Problems/Ideal Solutions

We can't install the system on top of the tower #3 due to grand terminal issues. The cable that was used for grounding is broken. Instead, we will use a smaller tower that is shorter in hight than tower #3

The new Vaisala weather station stopped working after rewiring. We are still not sure what happened to it and we will send it back to the manufacture for repair.

How the grounding terminal should be

Damaged ground terminal

Internal wiring of the new Vaisala

Lin Family Garden & PingXi

Lin Family Garden

With Poki

Water Lily

He had purple Eyelashes!

@ PingXi Railroad

Taro Ice cream with Peanut and Parsley

Free Lantern Experience at PingXi!

Jin's Masterpiece

Kevin's Wish

Flying Preparation

I was asked to write something in Farsi
I wrote: Summer 2012, Taiwan
Then in English: Prime UCSD
love, Happiness, Health
At the end, it's our names in Farsi again:
Sara, Poki,Jin,Kevin

Our Lantern got burned just after few seconds it was up in the sky. Poki asked for refund and she got our money back!

Acknowledgments

Prime Coordinators

▷ Gabriele Wienhausen

▷ Peter Arzberger

▷ Teri Simas

Mentors (TFRI)

▷ Chau Chin Lin

▷ Sheng-Shan Lu

▷ Yu- Huang Wang

Mentors (UCSD)

▷ Tony Fountain

▷ Peter Shin

▷ Gesuri Ramirez

Collaboration with:

▷ Ariana Tsai