

Sprint Report #3

December 3, 2015

Team Overview

Project

ARM Cluster

Members

- Andrew Hoover
- Samantha Kranstz
- Christine Sorensen

Sponsor

Dr. Christer Karlsson

Meeting Times

Tuesdays and Thursdays at 1:00pm

Work Times

Tuesdays and Thursdays at 10:00am

Sprint Overview

Setback

Deliverables

- Built cluster
- MPI code
- Mounted home directory
- Shutdown script
- Mounting script
- LINPACK and ATLAS installed on ODROIDS
- MPI installed on ODROIDS
- Hostnames
- Fixed IP Addresses
- SSH configuration

Activities

Andrew Hoover

- Installed LINPACK and ATLAS
- Assembled cluster
- Replaced broken ODROIDS
- Fixed IP address on the ODROIDS
- Connected all ODROIDS over network
- Accessed the internet through the ODROIDS
- Mounted home directory of Snow White on the other ODROIDS
- Wrote script to shut down all ODROIDS
- Wrote script to run LINPACK on ODROIDS for specified number of processes
- Removed the sudo password
- Wrote script to change network configuration to all access to the internet or local network
- Assembled cluster
- Debugged boot-up error
- Benchmarked cluster using LINPACK and MPI code

Samantha Kranztz

- Created client presentation
- Assembled cluster
- Debugged boot-up error
- Benchmarked cluster using LINPACK and MPI code
- Researched patents

Christine Sorensen

- Assigned hostnames to each of the ODROIDS
- Configured ssh on ODROIDS
- Replaced broken ODROIDS
- Wrote MPI code to run on all cores of the clusters
- Updated design documentation
- Wrote script to mount home directory of Snow White onto all ODROIDS at once
- Added ODROID's hostnames to the others' known hosts list
- Wrote sprint report
- Assembled cluster
- Debugged boot-up error
- Benchmarked cluster using LINPACK and MPI code

Work that is carried over into Sprint 3 is as follows:

- Design cluster
- Build cluster
- Benchmark cluster
- Test message-passing

Backlog

- Build the cluster
- Code for the cluster
- Benchmark the cluster
- Experiment with different topologies
- Create a new mode of communication

Goals

- Go to research symposium
- Prepare Design Fair