

CPRE 491 WEEKLY REPORT 02

Project Molecule

13 – 19 September 2016

May1739

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Daniel Griffen – Key Concept Holder

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2 WEEKLY SUMMARY

This week we met to set project specifications and determine hardware/software requirements.

3 PAST WEEK ACCOMPLISHMENTS

All Members:

- Determined project specifications
- Picked languages and hardware resources
- Determined Use Cases

Ryan Wade:

- Set up advisor meeting

Nathan Volkert:

- Set up Slack for group for communication

Daniel Griffen

- Set up GitLab repository for project

Alex Berns

- Took notes for project specifications

4 INDIVIDUAL CONTRIBUTIONS

NAME	Hours this week	Hours cumulative
Ryan Wade	3	7
Nathan Volkert	3	5
DanielGriffen	3	5
Alex Berns	3	5

5 COMMENTS AND EXTENDED DISCUSSION

Specification:

- Low power unix solution – Pi
- Standardized API for packages in C style
- Main binary API
- Ability to insert web tools, with standardization of UI comps
- Dynamic UI generation from config file from vendors
- Default features are written as extensions
- Load and delete plugins
- Permission systems for plugins, can deny specific permissions
- General Permission settings (deny globally a certain permission)
- Maybe sandbox processes? usergroup, cgroup, docker, special user
- Synchronize files (need more research!) - git?
- Each node has a public key and can post IP address to each other, when adding nodes to the system use a short hand to add public key.
- How will consensus work to understand right and wrong?
 - Nodes have permission for actions
 - Trust No one but yourself, ask your neighbors if someone is safe
 - encrypt and sign messages for double encrypt messages

Hardware & Software:

- Raspberry Pi
- R for backend
- Node.js and JS for front-end

Use Cases:

- Media Server – play
- Light/Outlet Control – on
- Scheduler - make plan,
- ifthisthanthat extension

6 PLAN FOR COMING WEEK:

All Members:

- Meet with Advisor on Tuesday
- Do research on core concepts
- Investigate Use Cases
- Determine necessary API support

7 SUMMARY OF WEEKLY ADVISOR MEETING

NA – first meeting on Tuesday September 20th