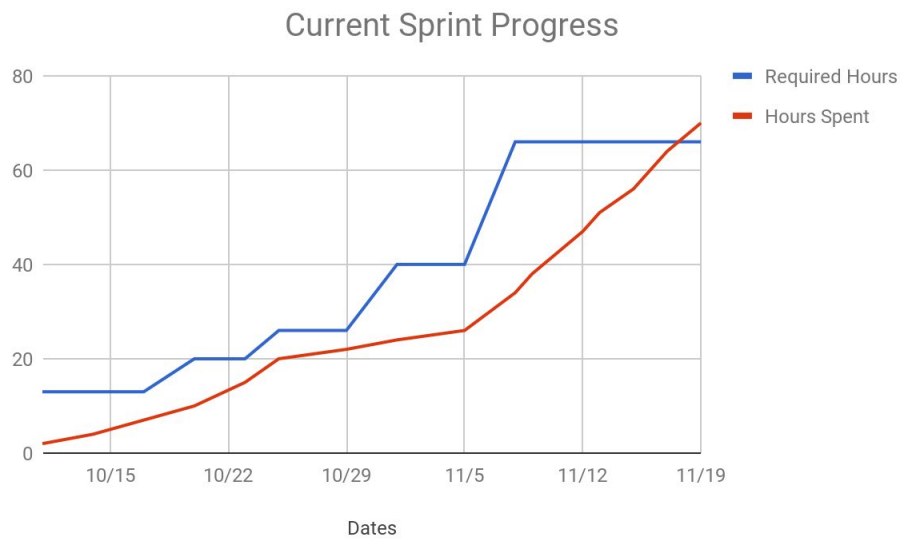
Sprint 4 Report
Ethereum Microtransactions
2x2
11/19/2017
Revision Number 0
Revision Date: 11/19/17 (if there is one)

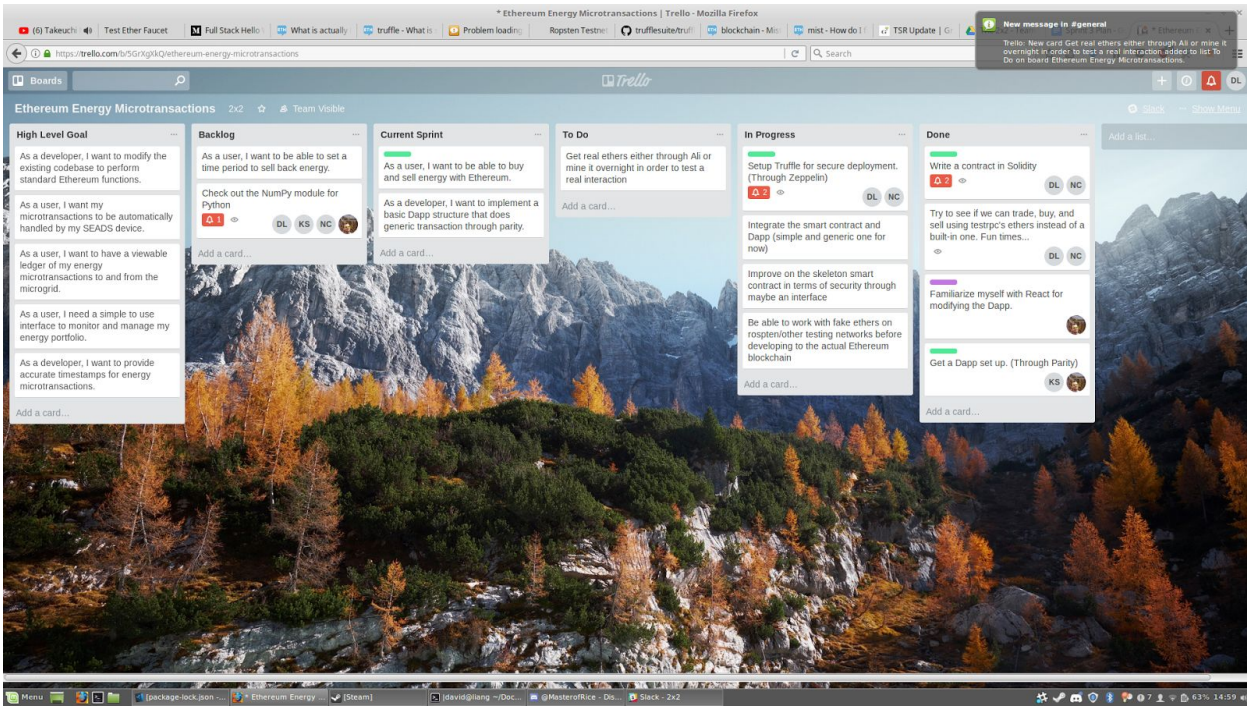
1. **Goal**
    a. Understand the concept behind the existing SEADS's code and how it interacts with raspberry pi 0.
    b. Be able to set up the APIs used in the skeleton project onto SEADS.
    c. Essentially, be able to monitor energy portfolio and predict energy usages in the near future.
2. **Task Listing**
    a. User Story #1 - (5)As a developer, I want to amend the existing project to be able to monitor and interact with token currency (energy source) through the effect of ethereum blockchain.
    b. User Story #2 - (13)As a user, I want a simple-to-use interface to monitor and manage my energy portfolio.
    c. User Story #3 - As a developer, I want to provide accurate timestamps for energy microtransactions
    d. User Story #4 - (backlog) - As a user, I want to be able to set a time period to sell back energy.
3. **Team Roles**
    a. Role 1 - Everyone is working on this together as this is the final stage
        i. Tentative as there could be some minor problems later on
4. **Initial Task Assignment**
    a. David Liang - project owner, developer
    b. Zachary Olson - developer
    c. Kevin Serrano - Scrum Master, developer
    d. Nicholas Cheung - developer
5. **Initial Burnup Chart - (from Sprint Plan/Report 3)**

a. Update #0



6. Initial Scrum Board - (from Sprint Plan 3)

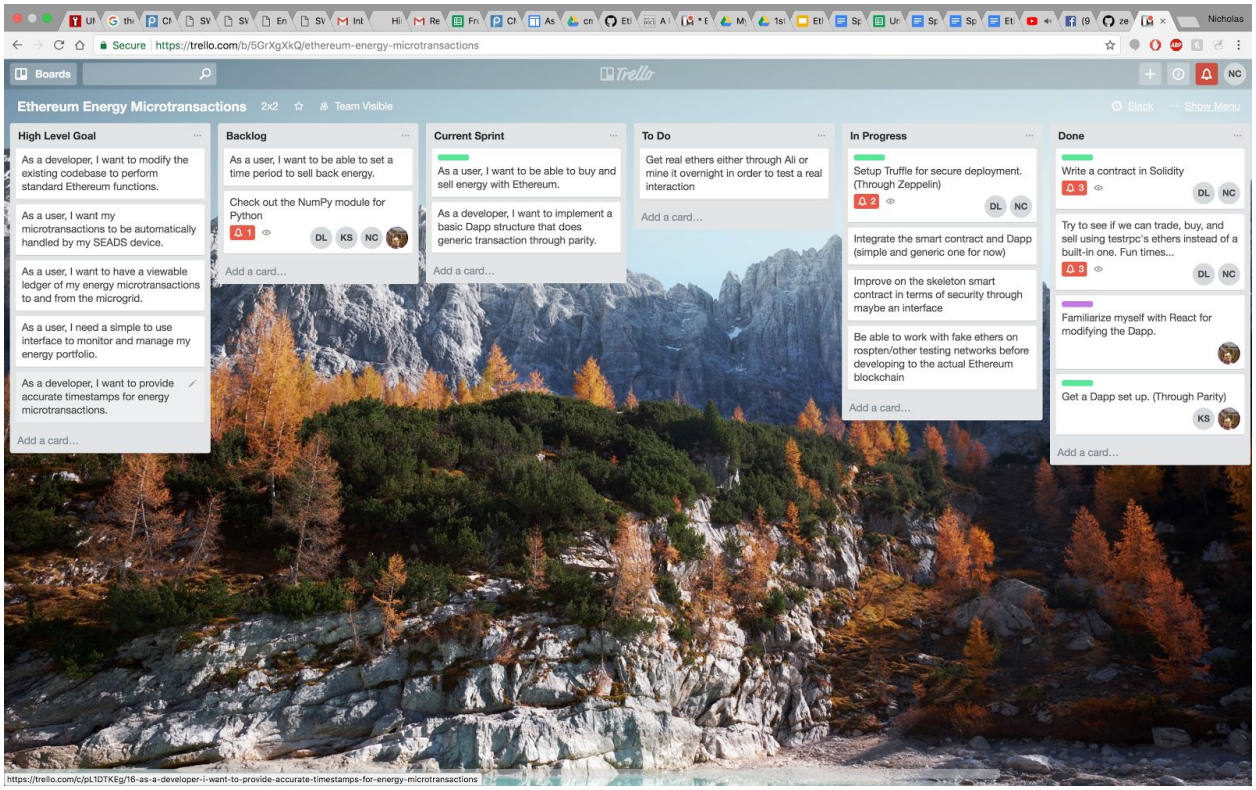
a. Update #0



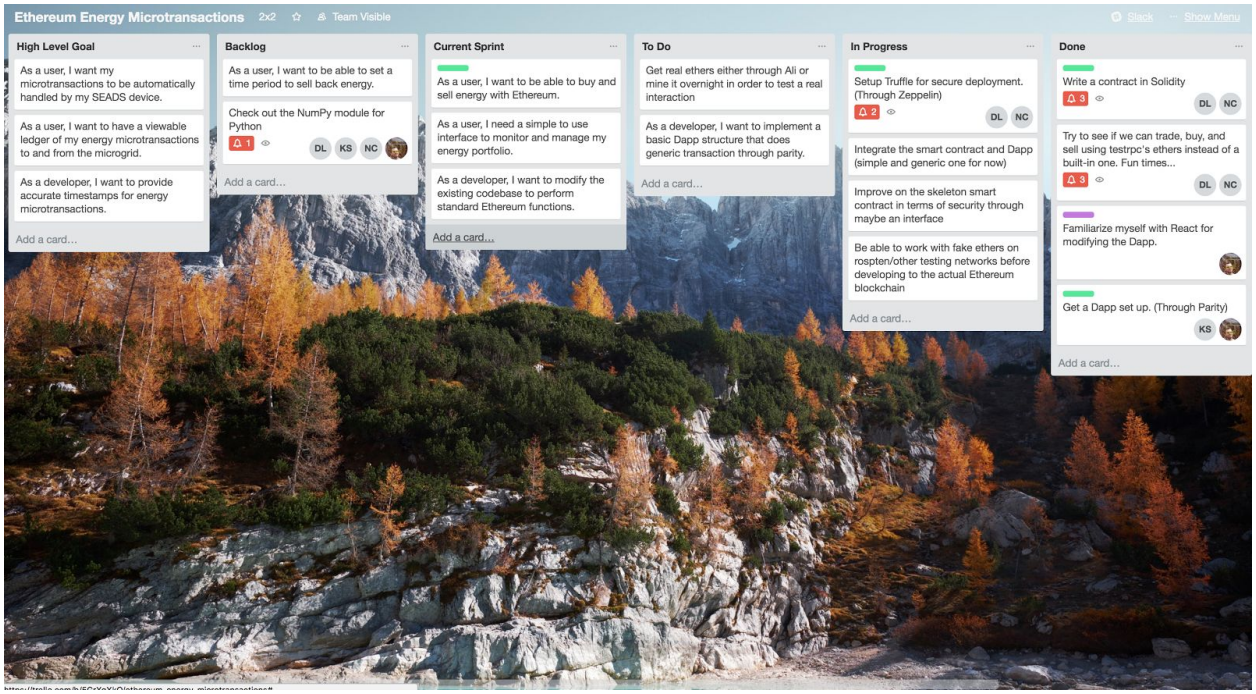
7. Scrum Meetings

a. Wednesday - 9:15am - 9:30am
b. Wednesday - 4:30pm - 4:45pm
c. Thursday - 12pm - 12:15pm
d. Sunday - 11am - 11:15am

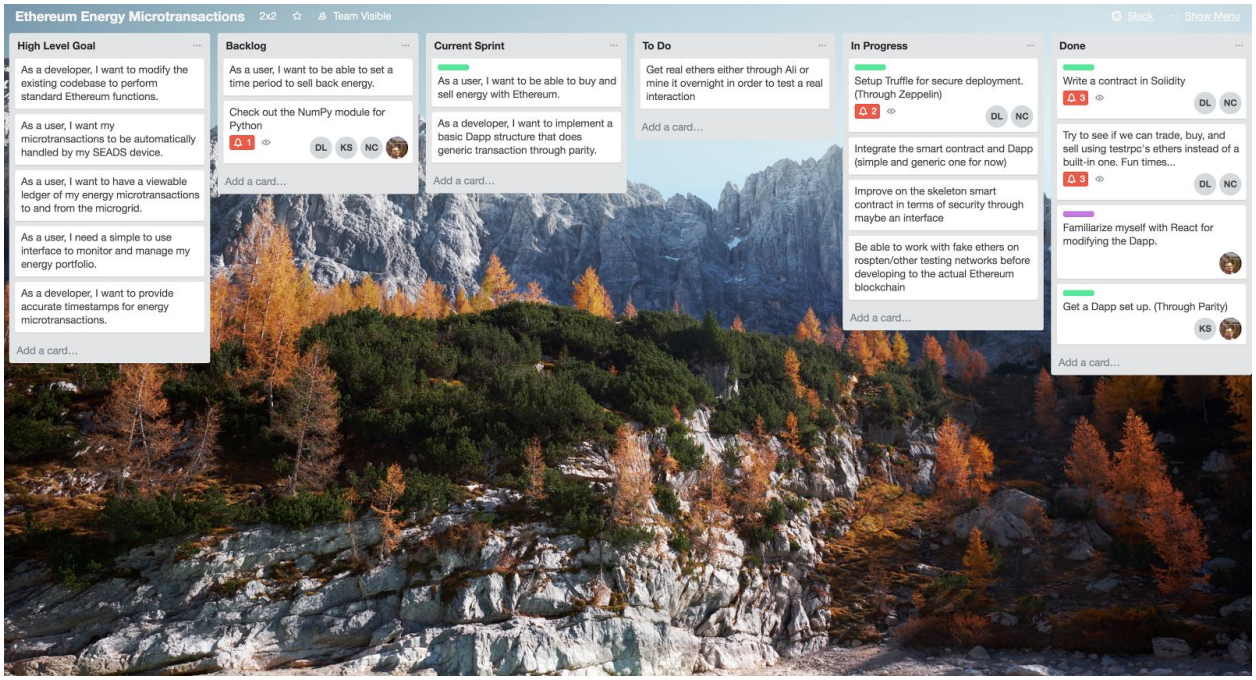
Initial Trello Board



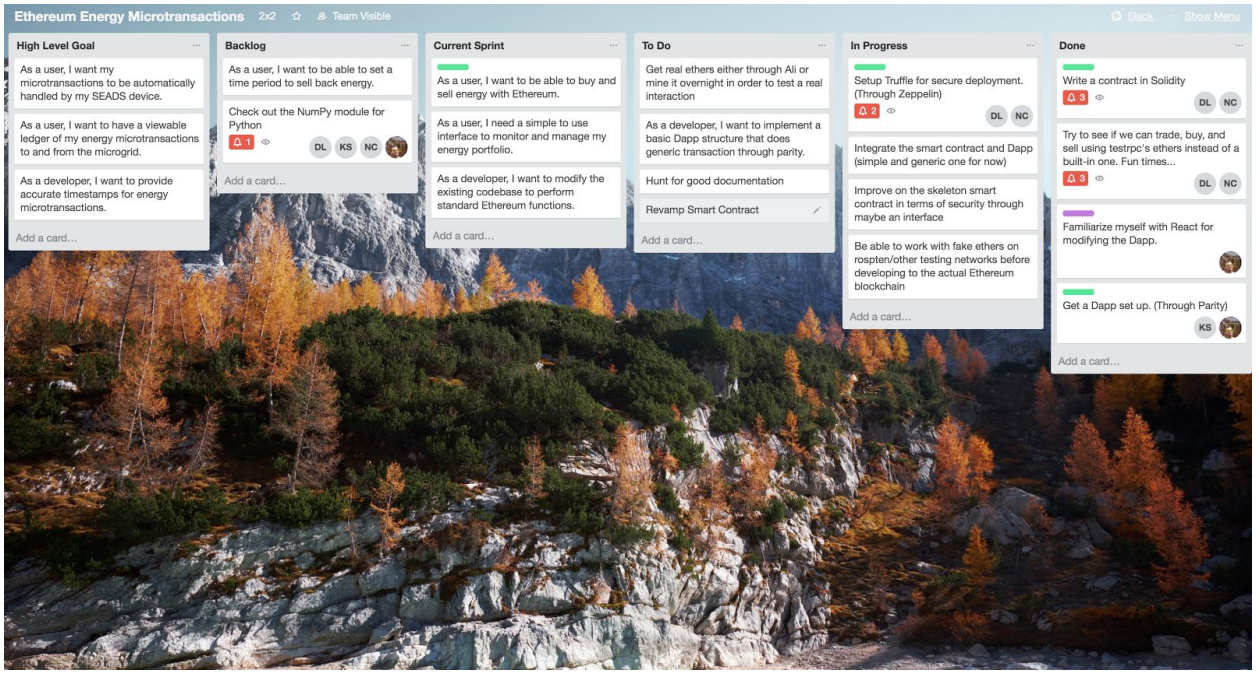
2nd



3


Ethereum Energy Microtransactions
2x2
Team Visible
Slack
Show Menu
High Level Goal
As a developer, I want to modify the existing codebase to perform standard Ethereum functions.
As a user, I want my microtransactions to be automatically handled by my SEADS device.
As a user, I want to have a viewable ledger of my energy microtransactions to and from the microgrid.
As a user, I need a simple to use interface to monitor and manage my energy portfolio.
As a developer, I want to provide accurate timestamps for energy microtransactions.
Add a card…
Backlog
As a user, I want to be able to set a time period to sell back energy.
Check out the NumPy module for Python
Add a card…
Current Sprint
As a user, I want to be able to buy and sell energy with Ethereum.
As a developer, I want to implement a basic Dapp structure that does generic transaction through parity.
Add a card…
To Do
Get real ethers either through Ali or mine it overnight in order to test a real interaction
Add a card…
In Progress
Setup Truffle for secure deployment. (Through Zeppelin)
Integrate the smart contract and Dapp (simple and generic one for now)
Improve on the skeleton smart contract in terms of security through maybe an interface
Be able to work with fake ethers on rospten/other testing networks before developing to the actual Ethereum blockchain
Add a card…
Done
Write a contract in Solidity
Try to see if we can trade, buy, and sell using testrpc's ethers instead of a built-in one. Fun times...
Familiarize myself with React for modifying the Dapp.
Get a Dapp set up. (Through Parity)
Add a card…

4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As a user, I need a simple to use interface to monitor and manage my energy portfolio.
As a developer, I want to modify the existing codebase to perform standard Ethereum functions.
Add a card…
To Do
Get real ethers either through Ali or mine it overnight in order to test a real interaction
As a developer, I want to implement a basic Dapp structure that does generic transaction through parity.
Hunt for good documentation
Revamp Smart Contract
Add a card…
In Progress
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Current Board