

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 - As a developer, I want to amend the existing the project to be able to monitor and interact with token currency (energy source) through the effect of ethereum blockchain.
- b. User Story #2 - 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

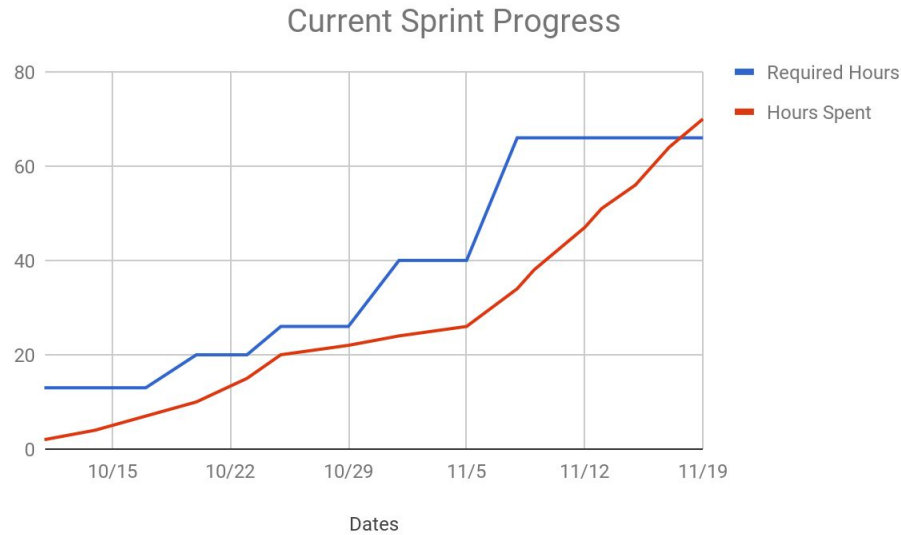
- a. Role 1 - Everyone is working on this together as this is the final stage
 - i. Tentative as there could be some minor problems later on

4. Initial Task Assignment

- a. David Liang - project owner, developer
- b. Zachary Olson - developer
- c. Kevin Serrano - Scrum Master, developer
- d. Nicholas Cheung - developer

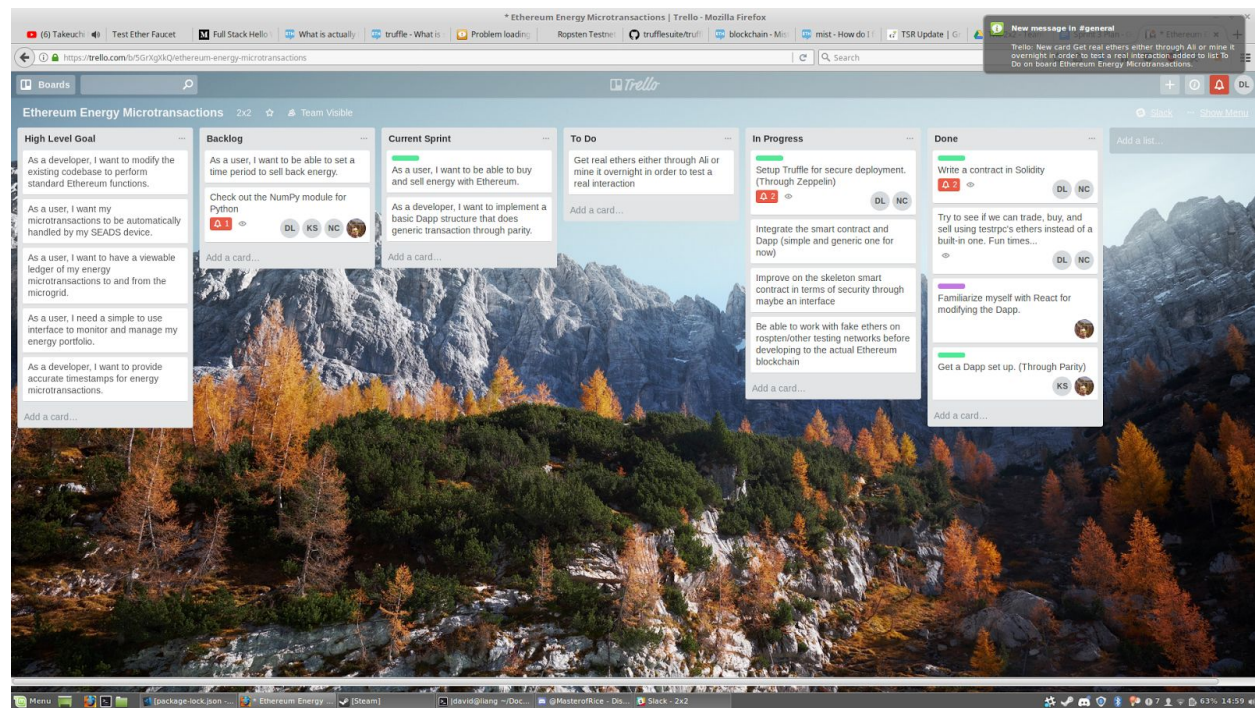
5. Initial Burnup Chart - (from Sprint Plan/Report 3)

a. Update #0



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

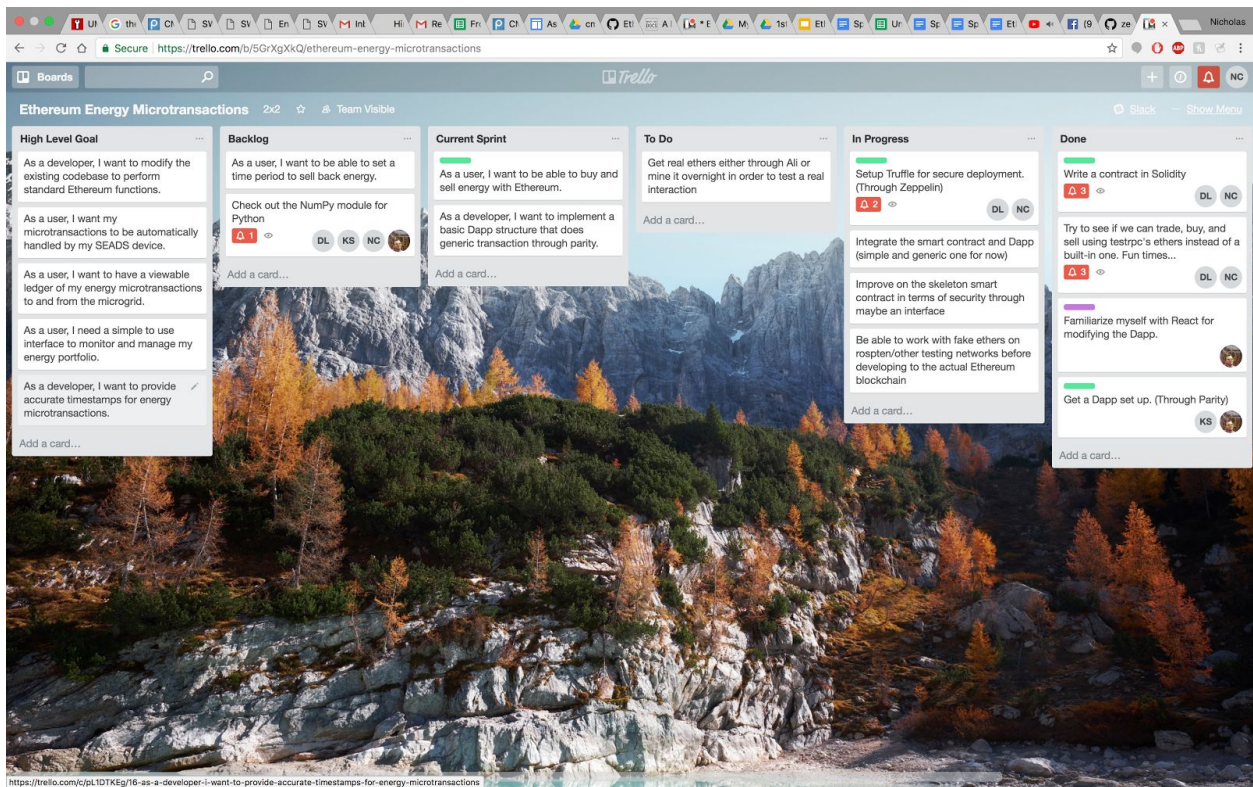
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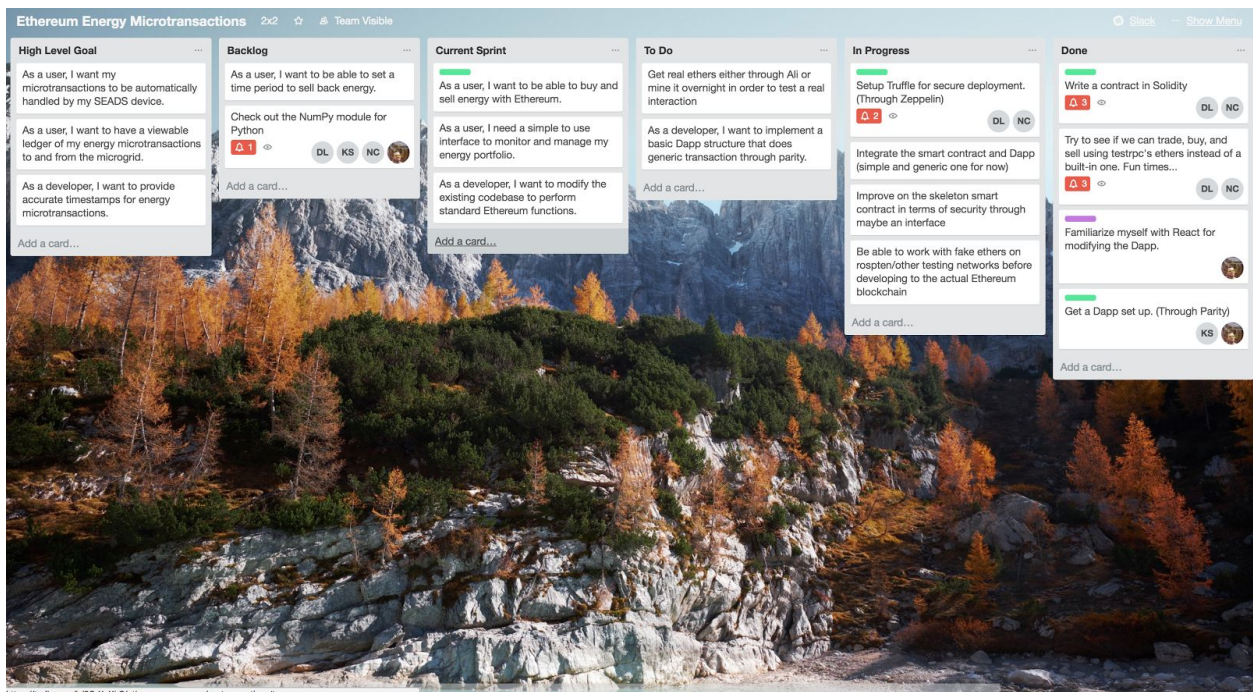
7. Scrum Meetings

- Wednesday - 9:15am - 9:30am
- Wednesday - 4:30pm - 4:45pm
- Thursday - 12pm - 12:15pm
- Sunday - 11am - 11:15am

Initial Trello Board



2nd



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Ethereum Energy Microtransactions 2x2 ☆ Team Visible

Stack 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 **A 1** DL KS NC
- 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) **A 2** DL NC
- 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 ropsten/other testing networks before developing to the actual Ethereum blockchain
- Add a card...

Done

- Write a contract in Solidity **A 3** DL NC
- Try to see if we can trade, buy, and sell using testrpc's ethers instead of a built-in one. Fun times... **A 3** DL NC
- Familiarize myself with React for modifying the Dapp.
- Get a Dapp set up. (Through Parity) KS
- Add a card...

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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...

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