

BlockCaffeine

An Ethereum-based payment system for coffee makers



Problem

- Coffee maker in our kitchen is freely accessible
 - Lack of access control
 - Unauthorized consumption of coffee is possible
- Cost of coffee beans is equally divided by employees
 - Everyone pays the same, regardless of coffee consumption
 - Fairness?

Problem

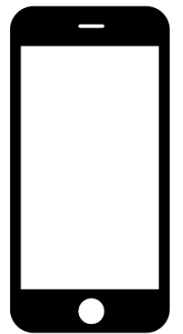
Unaccessible

BLOCKCHAIN



- Cost of con.
 - Everyone pays the same, regardless of their contribution
 - Fairness?

Setup



ethereum

[CC-BY 2.0](https://coffee-rank.com/best-coffee-makers/), Angela Coffee Rank
<https://coffee-rank.com/best-coffee-makers/>

[CC-BY 2.0](https://sparkfun.com/), SparkFun Electronics
<https://sparkfun.com/>

Tasks

- Establish communication between coffee maker and Raspberry Pi
 - Find appropriate modes of operation/sequence of commands
 - Serial communication protocol is (somewhat) documented
- Build client-side software on RaspberryPi
 - Monitor events on Ethereum Blockchain and issue appropriate commands
- Build Smart Contract/dApp
 - Implement payment logic

General Information

- 6 Participants (2 per task) for 6 months
- English
- Requirements:
 - Programming skills, ideally also in Solidity
 - Basic understanding of serial communication protocols
 - Basic understanding of Ethereum and Smart Contracts
- Your presence is required to work on the coffee maker!
- Open to MMDS if requirements are fulfilled

Summary

- Fun and very hands-on project
- Combines two hyped topics: IoT and Blockchain
- Tangible results
- **Free coffee**

Questions?

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