Bitcoin Payroll

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What is it?

Bitcoin Payroll is a system where employees are paid in satoshis immediately upon finishing their shift of work.

Each employee has an RFID badge that they use to badge in/out of work. Both RFID transactions are logged to a database. The hours worked is calculated upon clocking out.

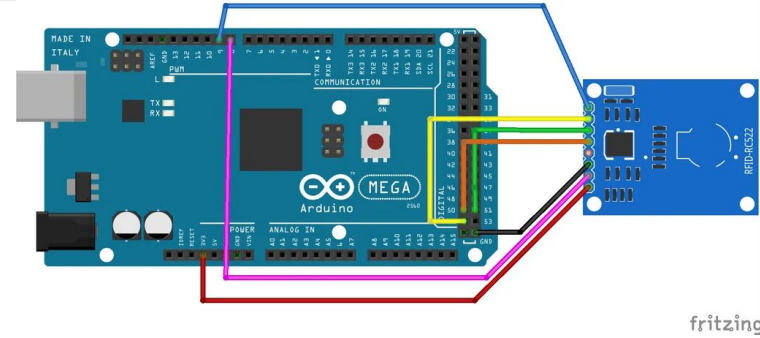The satoshis paid are then sent to the address on file for the employee.

Hardware Setup

Hardware items:

- Arduino: MEGA2560 R3
- RFID-RC522 Sensor
- RFID card and RFID tag

Setup

- Connect RFID sensor onto the arduino with the schematic in the top right corner
- Had this arduino connected to a laptop using USB. Note: the MEGA2560 doesn't have WIFI capabilities and needed to be hooked up via a USB to update the server

DEMO

Future Problems to Solve

1 What happens if an employee forgets to clock out?

3 Should there be an approval system so employees can not intentionally falsify their hours worked?

2 Employees using mobile phones as RFID cards.

4 The employer could have multiple wallets that they pay out from based on the type of work being done. This is similar to charge numbers in modern accounting systems.

Issues Encountered

1 We had some difficulties getting the arduino to talk to the api so we could enter shifts into the database.

2 We had some challenges deciding on how to centralize the Bitcoin Core instance since we were spread out across Austin. We ended up using NGROK to expose the local host of the machine that was running Bitcoin Core

Thank you.