Project Plan: Raspberry Pi Indy Agent

Goals

Build an Indy agent running on raspberry pi that can interact with other agents and have easy access to GPIO pins.

Deliverables

- Raspbian Indy Agent repo that passes Indy Agent test suite allowing reads/writes of GPIO pins
- Image of Raspbian-Indy-Agent for easy deployment onto Raspberry Pi
- Documentation of Raspbian-Indy-Agent detailed enough for replication
- Example code and demo using Raspbian indy agent
- Hyperledger Aries RFC on how to interact with senseHat
- Video on youtube presenting the project

Mentee Name and Contact Info

ZIXUAN ZENG
zixzeng@gmail.com
Rocketchat id: zxx02

Milestones

- Project kickoff, communication on the project, setting up communication channels ZIXUAN ZENG Adam Burdett 03 Jun 2019
- Week 1 07 Jun 2019
  - Select and order hardware for the project. ZIXUAN ZENG
  - Install an operating system image(Raspbian OS) on Raspberry pi ZIXUAN ZENG
  - Onboarding with Indy project ZIXUAN ZENG
- Week 2 14 Jun 2019
  - Made pi connected
    - Public accessible via ngrok
    - Public accessible via beame-inst-a-ssl
  - Be familiar with coding GPIO on Raspberry pi
    - Displaying text, single character, color, images
    - Temperature, pressure, humidity sensor
    - Movement detection
    - Joystick pressing detection
  - Built Indy reference agent on PC.
- Week 3 (report) 21 Jun 2019
  - Indy agent software on raspberry pi selected
  - Building indy-sdk on rasbberry pi
- Week 4 28 Jun 2019
  - Indy sdk build on raspberry pi
  - Try to run demo with Monty headless on pi.
  - Running python agent on pi
  - systemd configuration start
- Week 6 Half (report) 12 Jul 2019
  - Make Python agent run on pi and can interact with other agents
  - Demo of python agent running on raspberry pi interacting with other agents and ledger?
- Week 7 19 Jul 2019
  -
- Aries RFC on the way interacting with senseHat, started discussion
  - Make Aries Cloud Agent run on pi
  - Making the raspberry pi image creation script

- Week 8 26 Jul 2019
  - Coding new module for agent
  - Start documentation

- Week 9 02 Aug 2019
  - Debugging new module
  - Code review from the community

- Week 10 09 Aug 2019
  - Documenting project
  - New module pull request

- Week 11 16 Aug 2019
  - Documenting project
  - Deliver image for raspberry pi indy agent
  - Repo for the project

- Week 12 23 Aug 2019
  - Video demo recording the project for presentation

Accomplishments

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<tr>
<th>Description</th>
<th>Due date</th>
<th>Assignee</th>
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**Summary Report**

**Slides:**
Demo video:
(To upload)