SPIKE Hub2Hub-Communication - OpenWorld RaspberryPI - Solution

Hub2Hub-OpenWorld Communication

Frank Ellerkamp v1.1 202103

1. DistanceSensor detects movement and sets variable
2. SendHub sends new variablevalue by REPL
3. Node Red converts stream to JSON objects
4. Node Red filters objects, search for variable
5. Node Red sends JSON command „Turn motor"
6. RecvHub receives command and turns motor
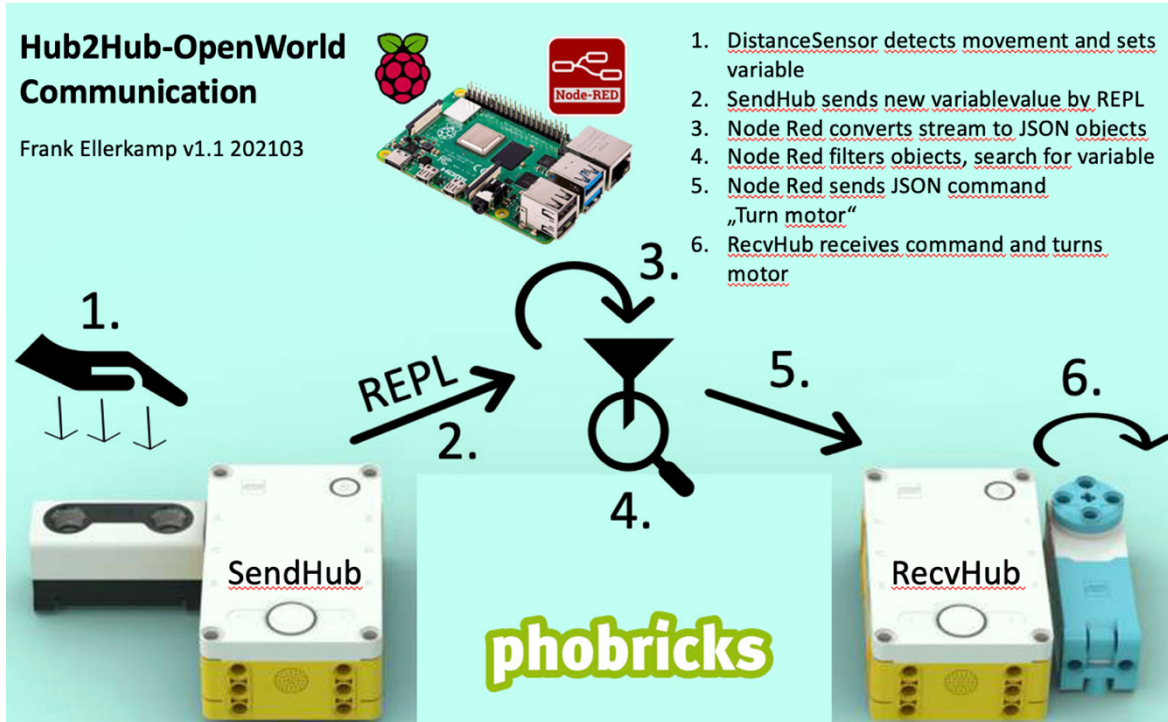
Instruction:

1. Install latest SPIKE APP on your Smartdevice (PC, Mac, Tablet)
2. Prepare SPIKE Hubs
   a. SenderHub: DistanceSensor on Port A
   b. ReceiverHub: Motor on Port B
   c. Install h2h_opeworld_***.llsp programs on hubs (download mode) (https://github.com/PhoBricks/hub2hub)
   d. Close SPIKE App
3. Install BT/BLE communication for SPIKE on your RaspberryPi https://medium.com/jj-innovative-results/how-to-set-up-bluetooth-on-the-raspberry-pi-for-a-lego-spike-61b137f98673
4. Configure serial communication for both SPIKE hubs (eg. /dev/rfcomm7 /dev/rfcomm8)
5. Install Node Red on your RaspberryPI https://nodered.org/docs/getting-started/raspberrypi
6. Install serial port on Node Red https://flows.nodered.org/node/node-red-node-serialport
7. Download, install and deploy NodeRed-Flow: https://github.com/PhoBricks/hub2hub/blob/main/h2h_openworld_nodered.json
8. Test it! Improve it! Share it!

Node Red Flow: