Node Red

am Beispiel PiFace Digital 2

Node Red

→ https://de.wikipedia.org/wiki/Node-RED

Hardware

→ https://www.element14.com/community/docs/DOC-69001/l/piface-digital-2-for-raspberry-pi

Pi3:

/usr/local/lib/python3.5/dist-packages/pifacecommon/spi.py :

```
transfer =  spi_ioc_transfer(
        tx_buf=ctypes.addressof(wbuffer),
        rx_buf=ctypes.addressof(rbuffer),
        len=ctypes.sizeof(wbuffer),
        speed_hz=ctypes.c_uint32(100000)
    )
```
(Speed reduzieren)

Installation

→ https://learn.adafruit.com/raspberry-pi-hosting-node-red/setting-up-node-red

```
sudo wget http://node-arm.herokuapp.com/node_latest_armhf.deb

sudo dpkg -i node_latest_armhf.deb

[node -v]

sudo apt-get install git-core

git clone https://github.com/node-red/node-red.git

cd node-red

sudo npm install

sudo node red.js ← START!
```

Browser (ggf. auch auf anderem Rechner, egal): http://Pi-IP-Addresse:1880

Flow für PiFace installieren:

Siehe → https://flows.nodered.org/node/node-red-contrib-piface-digital

`raspi-config` → enable SPI

git clone https://github.com/piface/libmcp23s17.git
```
cd libmcp23s17/
make
sudo make install
```

git clone https://github.com/piface/libpifacedigital.git
```
cd libpifacedigital/
make
sudo make install
```

npm install node-red-contrib-piface-digital

Anschließend Node Red neu starten (s.o.).

Updates

Node-Red: `cd ~/node-red/ ; git pull`