1 How to build your own Internet Speed Meter

Rough instructions for Setup from Windows 7. Linux Users will probably know how to adapt anyway :P

INFO for LOGIN: default user is used in this tutorial:

- **username: pi**
- **password: raspberry**

You need

- a Blinky Tape (e.g. 60 LEDs)
- a Raspberry Pi (e.g. Model 1 B)
- micro USB power cable (e.g. ca. 1200 mAh)
- SD card
- LAN cable

Prepare Workspace

- download raspian wheezy `https://www.raspberrypi.org/downloads/`
- download Win32 Diks Imager `http://www.softpedia.com/get/CD-DVD-Tools/Data-CD-DVD-Burn Win32-Disk-Imager.shtml`
- Download SD Card Formatter `https://www.sdcard.org/downloads/formatter_4/`

Setup Raspberry Pi

- Insert SD Card in PC
- open "SD Card Formatter"
- make sure that your SD card drive is selected and click "Format", confirm
- Unzip Raspian Wheezy Image and open "Win32 Disk Imager"
- Select the drive with your SD Card and open the Raspian image
- Install Raspbian image on SD card by clicking "Write", confirm, wait a few minutes

Configure System

- insert SD card in raspberry pi and connect power cable, wait for it to boot up
- select 1 "expand filesystem"
  - Optional: enable SSH via "Advanced Options", "SSH" (for convenience)
  - Optional: enable Windows Remote Desktop via "sudo apt-get install xrdp"
- select "Finish", reboot
- update libraries: "sudo apt-get update"

Install Fritzconnection

- install dependencies
  - pip: "sudo apt-get install python-pip", confirm with "y"
  - requests "sudo pip install requests"
  - libxml and libxslt: "sudo apt-get install libxml2-dev libxslt1-dev"
  - sudo apt-get install python2.7-lxml
- install fritzconnection: "sudo pip install fritzconnection"

Enable boot to Rasbian

- start raspi config "sudo raspi-config"
- select 3 enable Boot to Desktop/Scratch
- Select "Desktop Log in as user pi at the graphical desktop"
- press "Enter"
- select "Finish", reboot

Copy Speed Meter Code

- get speed Meter Code: Already included! look und /home/pi/SpeedMeter/
- if you cannot find it contact me (see opening letter for Mailaddress)
- Will be available on GitHub after the contest

Done!