Intro to gertbot-r-pi setup

Intro

As stated here: gertbot.com It runs with Linux and Windows. However as stated here: raspbian the OS raspbian is somewhat optimised software-wise for raspberry pi applications.

Power supply: Genesys, TDK-Lambda (Pizza box)

- The stepper motor 17H261-02S/D requires 1.8 A, max (see mail *Compotech*). From the specification sheet of the motor it says R = 4 (+-10%) Ohm. The stepper motor runs on DC. However from one of the *Compotech* sheets they provide: " Pull out torque-speed curves 24 V DC Chopper driver, 2 phases".
  - http://compotech.se/blogg/2014/06/sa-valjer-du-ratt-spanning-din-stegmotordrift/
  - http://www.galilmc.com/download/application-note/note5466.pdf
  - 1.2 A/phase and 4 Ohms wire-resistance -> 4.8 V (this is now slow) ~ 6V (1.5 A).
  - Now need a series resistor drive the controller which requires 8V.
  - What about connection of 2 stepper motors from the same power supply?
- We have manual in-house.
- Need RS232-USB connector cable from TDK-Lambda to r-pi.
  - Seems like it can work with a pure ethernet connector. RS232 is only a port for a "command protocol". BUT this needs verification ...
  - Dustin
- There is a set communication protocol which can be used via a port
  - interface: Python with pySerial module - pySerial
  - http://stackoverflow.com/questions/676172/full-examples-of-using-pyserial-package

Cableing:

- There are cables that can be used for free in the µ-hall
- How these are compatible with the power supply is still unclear!
- Useful https://www.isnr.de/images/Tools/low_cost_CT/How-to-set-up-the-Raspberry-Pi-and-Ger 30-08-2016.pdf