ROVER MANUAL

1. Prepare SD card for Raspberry Pi

- Download the image for the Raspberry Pi from this link:
- https://drive.google.com/file/d/10WZatEIUwdNFsnEF1Wy6XJNKAhsVZFOi/view?usp=sharing
- Download **Win32DiskImager** and follow the instructions from step 6. onwards: https://emteria.com/kb/clone-sd-cards-windows
- After everything is complete, insert the SD card back into the Raspberry Pi.

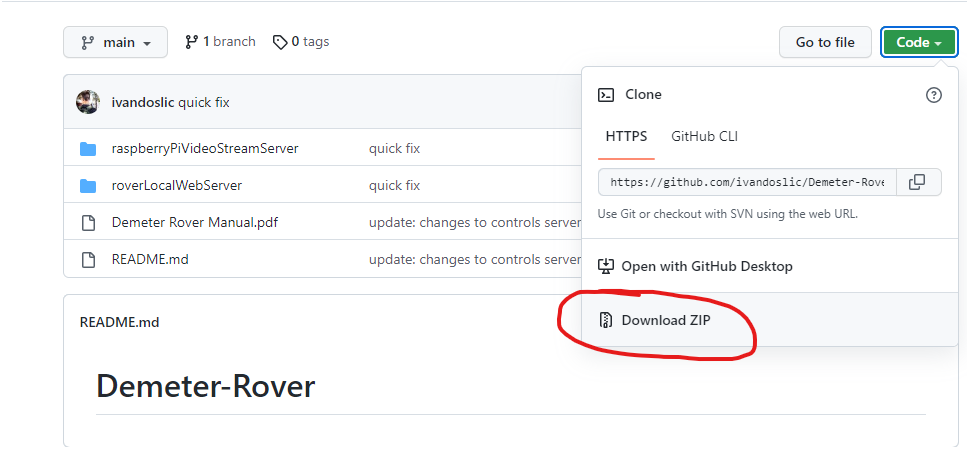
2. Set Router DHCP and WLAN

Connect the router with a PC with an ethernet cable (any LAN port on the router should be ok). Be sure to disconnect from any WiFi if you are connected at this time.
Follow the instructions from the manual of the router (this step varies depending on the manufacturer of the router), go into the router settings and set up a WLAN network with the following parameters:

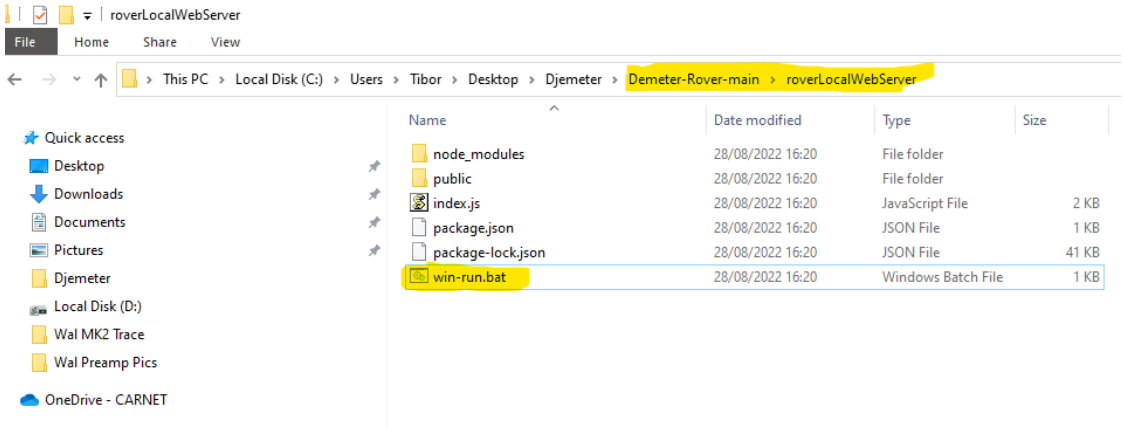
Network name: “RoverAP”
Password: ”APDEMETER”
(without the quote marks)

3. Install node.js and run bat file

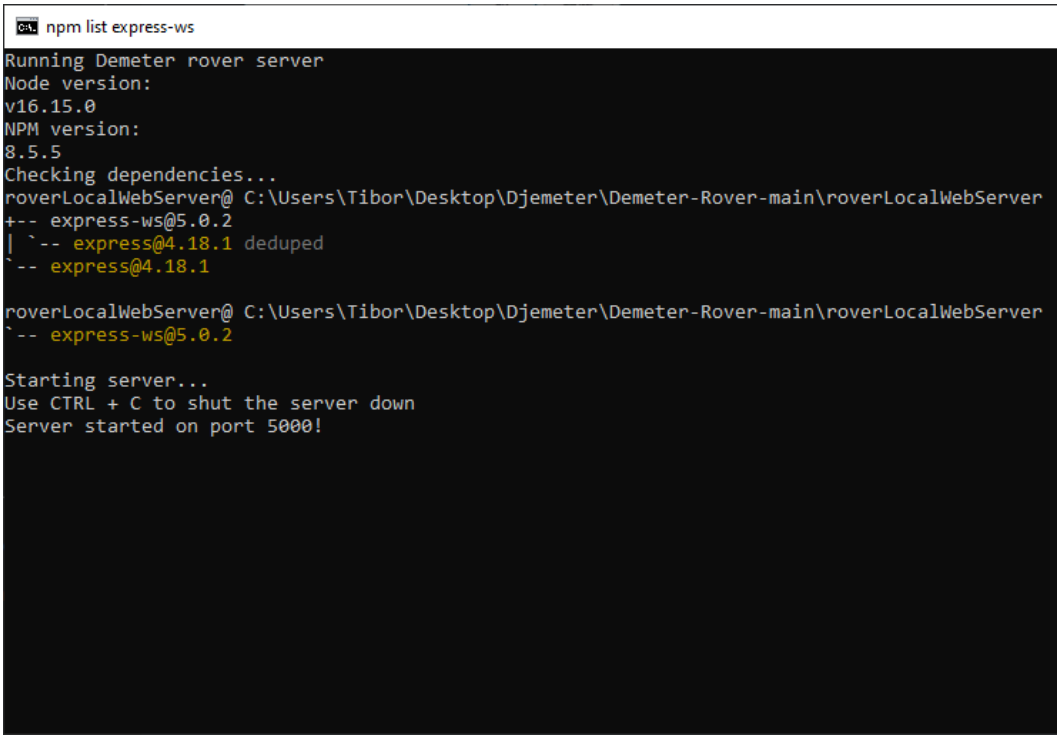
Next step is to download the software that will be run on the PC.
Download and install node.js LTS version from here (standard installer, just click next all the time):
https://nodejs.org/en/
From github, download all the files (note, that the manual is outdated, so it may not apply)
https://github.com/ivandoslic/Demeter-Rover



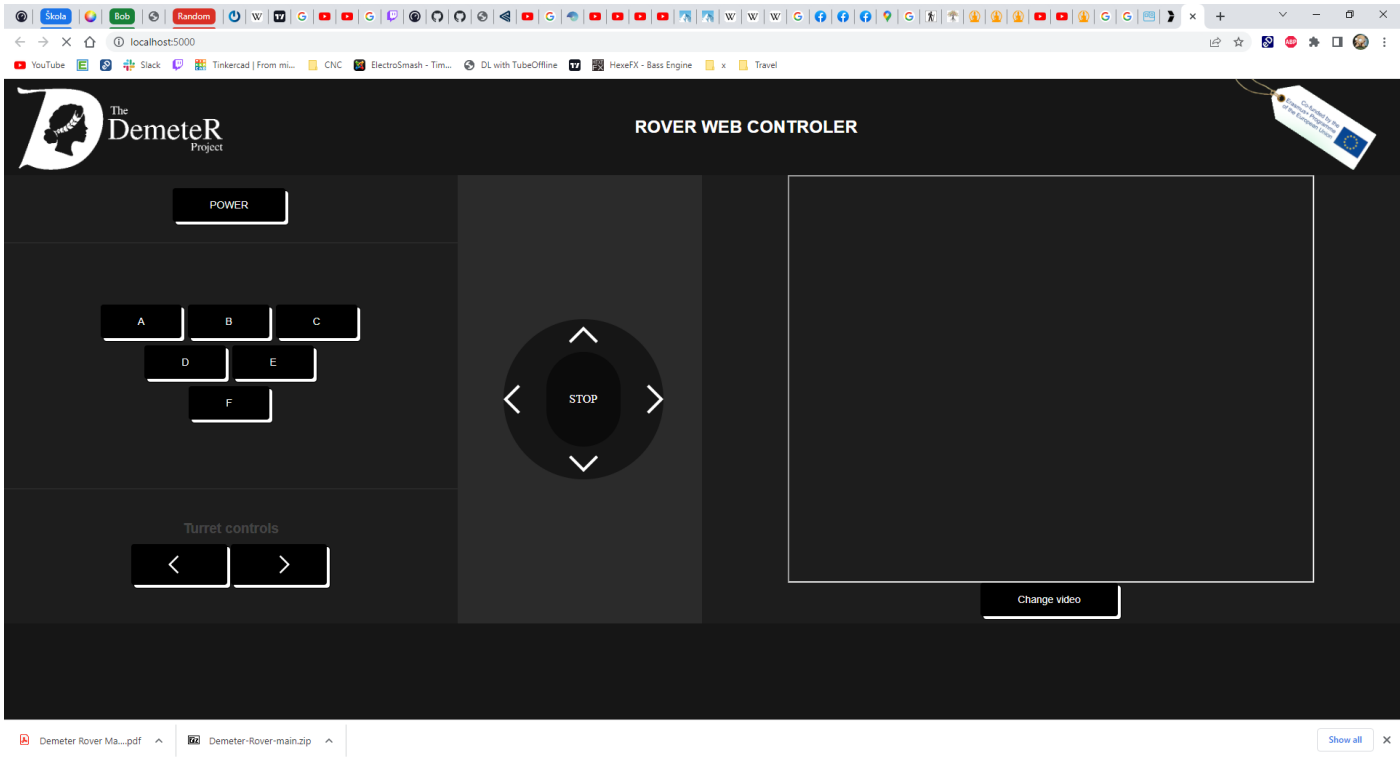
After downloading and extracting the zip file, navigate to the roverLocalWebServer folder and double click the win-run.bat file:



This will check if you have the required software installed and install it automatically if not. A cmd window will open and look like this when everything is complete:



Simultaneously your browser will open:



4. **Set PC to fixed IP address and connect to WLAN**

   Warning: after this step you will probably loose internet access on your PC. You will have to revert these settings to be able to access the internet again.

   Open your network adapter settings, and manually change your IP address, subnet mask and default gateway.

   Follow this guide on how to change IP address:

   https://pureinfotech.com/set-static-ip-address-windows-10/

   IP: 192.168.1.18

   Subnet mask: 255.255.255.0

   Default gateway: 192.168.1.1

   You may continue to stay connected to the router via Ethernet cable, or you may unplug it and connect to the Wireless that was set up earlier.

5. **Drive rover**

   Power on the Rover and wait for the interface to show up an image from the camera. This may take a few minutes because the Raspberry Pi takes time to boot fully.

   Drive the rover and have fun 😊