Firmware update procedure for Windows

Copy following files in an own directory:

`flash_typhoon_bootloader`	`Start script`
`px_uploader.py`	`Flash utility`
`yuneec_typhoon_h.fw`	`The firmware itself`

⚠The file name for the firmware may change. "`yuneec_typhoon_h.fw`" is used here as example.

Install Python for Windows if not yet done:

`Windows key + R` to open command field.

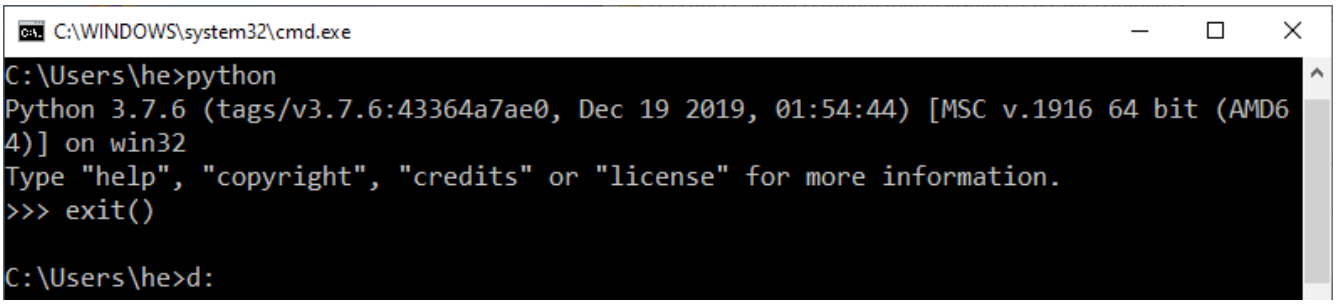
Type **`cmd`**

The Windows terminal will be opened. Keep it open, we need it all the time.

Type **`python`**

The Windows Store will be opened and offer Python installation. Follow the instructions to install Python.

If Python is correctly installed it should come up with its own command line >>>.



Leave it with **`exit()`**.

Then download module 'serial' for Python::
https://pypi.org/project/pyserial/#files

File name is "pyserial-3.4-py2.py3-none-any.whl", double click on it to install.

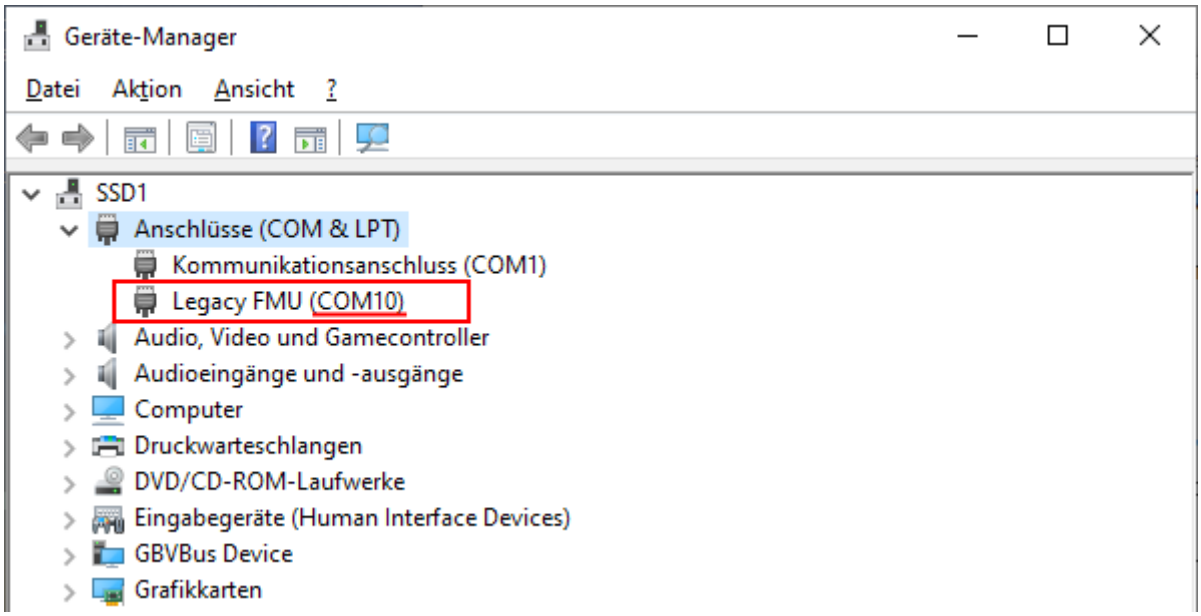
Python is installed now and we can run Python scripts like "`px_uploader.py`".

To find out what TTY port is used by the drone you have to check the Device Manager.

`Windows key + R` to open command field.

Type **`devmgmt.msc`**

The Device Manager will appear. Plug-in the USB cable to connect the drone with the PC. In node "Connections (COM & LPT)" an item "Legacy FMU" with a COM number appears.



Here we see, the port is "**COM10**".

Now we edit the file "flash_typhoon_bootloader" to set the correct port and save it as "**flash_typhoon_bootloader.bat**" to make it executable. The file text should look like that:

```
python px_uploader.py --port COM10 --force "yuneec_typhoon_h.fw"
```

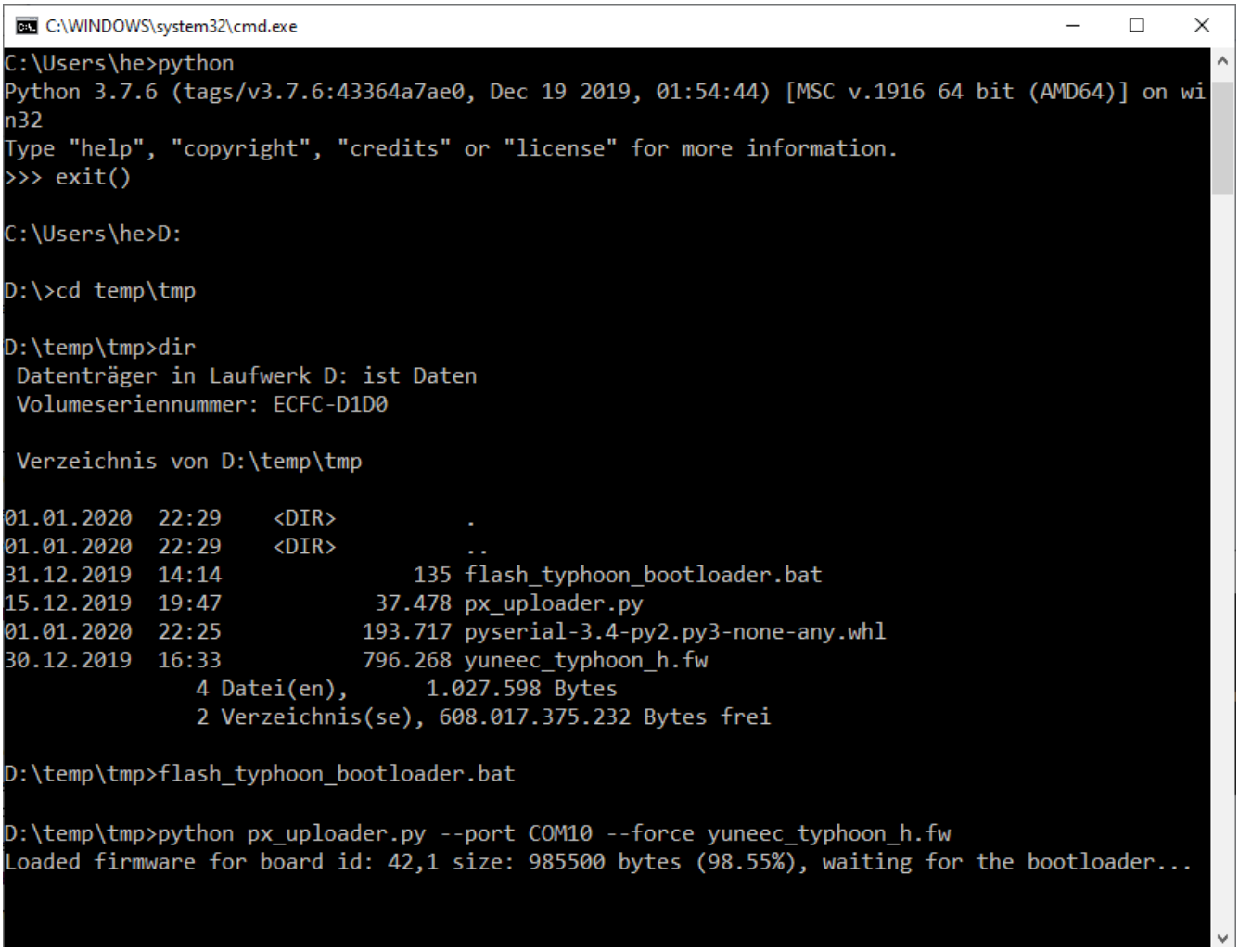
Note: After power-on the bootloader starts first and after a while the flight controller starts. If flight controller is running we cannot flash anymore. This is the reason why we have to start the script for flashing prior to power-up the MCU board which is powered only via USB cable. If we plug-in the USB cable when the script is already running we will be able to catch the bootloader.

⚠️Make sure the USB connection is cut and no battery in the drone. (MCU-board powered off).

Start firmware update script:

`flash_typhoon_bootloader.bat`

Plug in the USB cable immediately. Wait and observe terminal output.
Update process will start soon …



Reboot drone after firmware was flashed successfully. Done! 👍