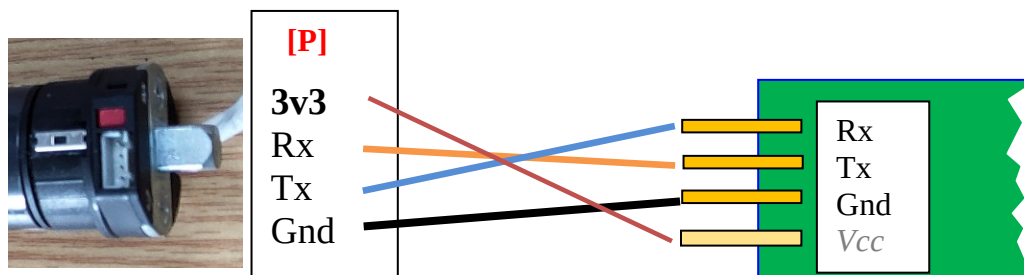
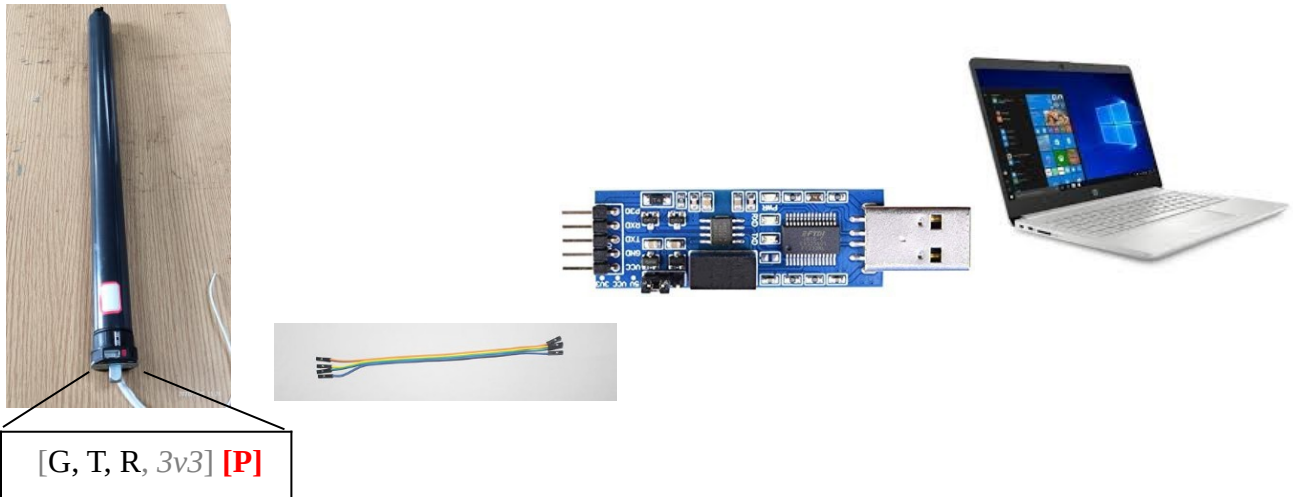


Tools:

1.1	USB-Serial module (3.3V TTL)	x 1 pcs	FT232RL is recommended.	It's available on Amazon about €10 .
1.2	Dupont Lines	x 4 pins		Included in USB-Serial module usually.
2.	Windows 10 Computer (with USB port)	x 1 pcs		Driver for FT232 USB-Serial module is easy to settle on Windows 10.
3.	Software firmware updating tool (lame_sender)	x 1 pcs		Python3.8 is needed. Firmware file is included in tool.
4.	TA35-5/22-WE motor	x 1 pcs		

Connection:



Prepare:

1. Install **Python3.8**, check on “Add Python to PATH”. Install **pyserial** by run “install_pyserial.bat”;
2. **Unplug motor AC power**;
3. Connect USB-Serial module to computer (Driver will be installed automatically by Windows 10 in few minutes after first plugging into USB port), **Remove jumper** on VCC and 5V0 or VCC and 3V3;
4. Connect serial port 4 pins (VCC,Rx,Tx,Gnd) to motor.

Steps:

1. **Remove jumper** on VCC and 5V0 or VCC and 3V3;
2. Run “upload.bat”;
3. **Connect jumper** in USB-Serial module of **3V3 and VCC** (this will power on MCU inside motor);
4. Updating... bi,bi,bi ... (~60s);
5. Done, or repeat from step 1, if not all data block completely sent, or checksum is not correct.

demo: https://github.com/elanwu/lame_sender/blob/master/demoT.gif