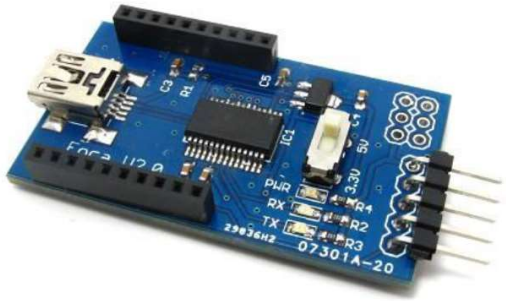
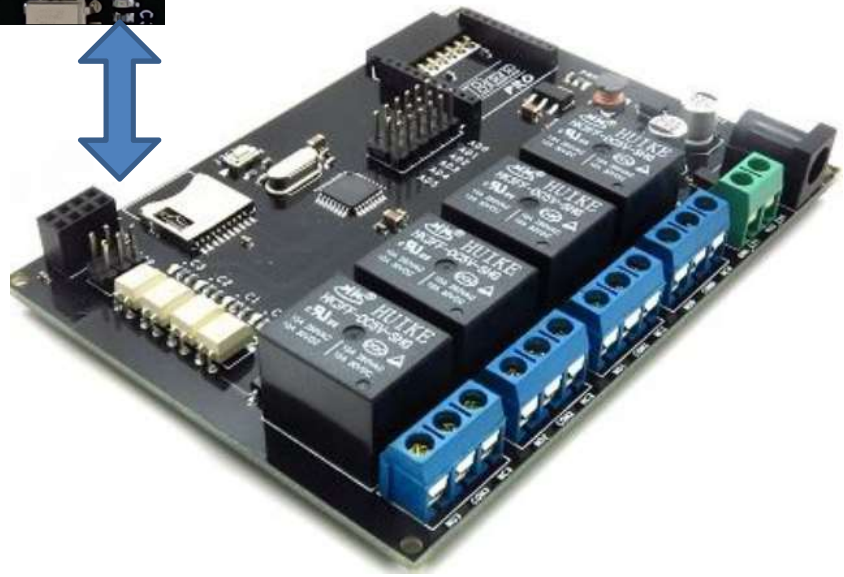
HA Rboard Hardware

Ethernet Board – Hanrun
ENC28C60 module

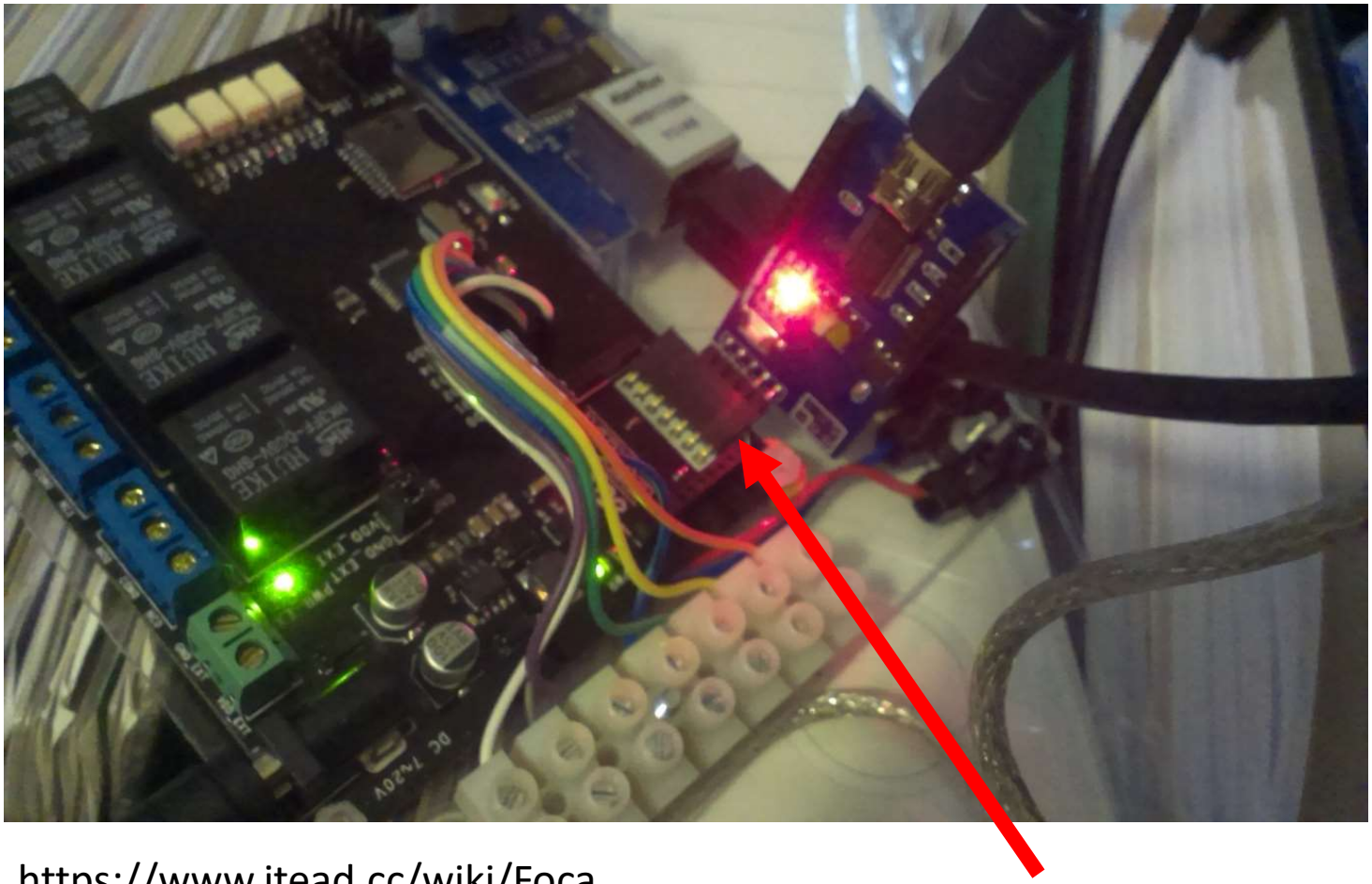
Foca Board – USB For
programming arduino and for
serial monitoring





ATMega328p (32Kb / 2K Ram / EEPROM)
12 V Power, 5V/3.3V Board
Digital I/Os - 6 Analog inputs
Not used - XBee, nRF24L01+, ...
I2C / SPI
4 Relays

Foca Board connection (programming)



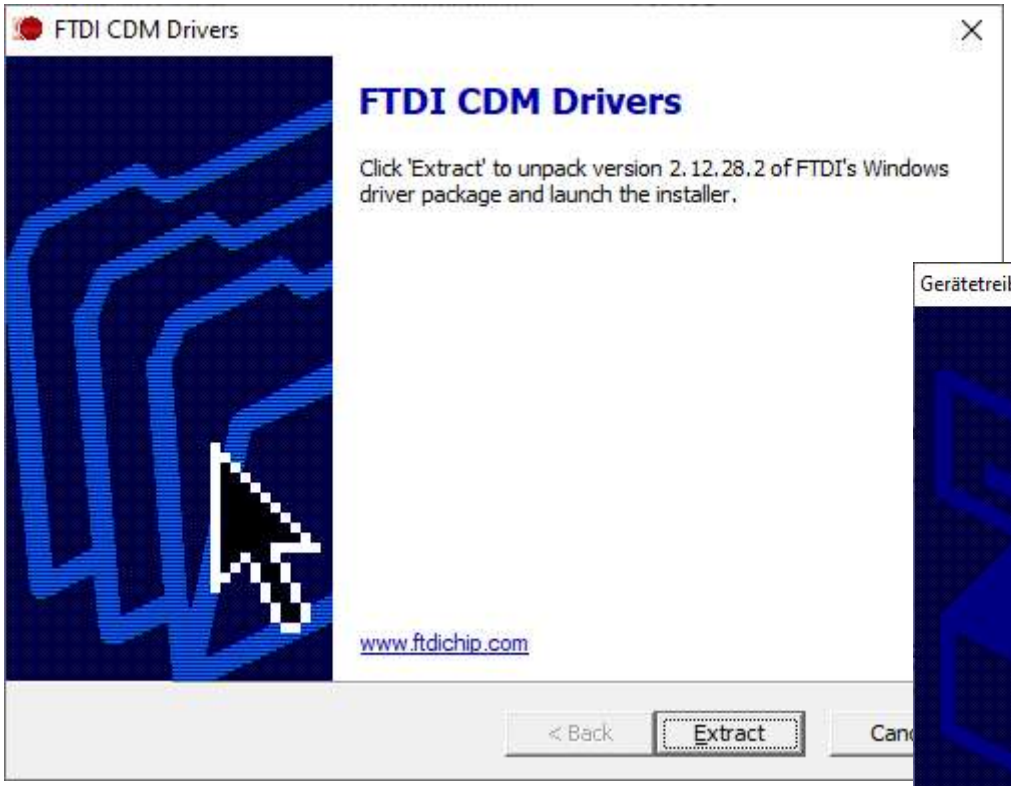
https://www.itead.cc/wiki/Foca

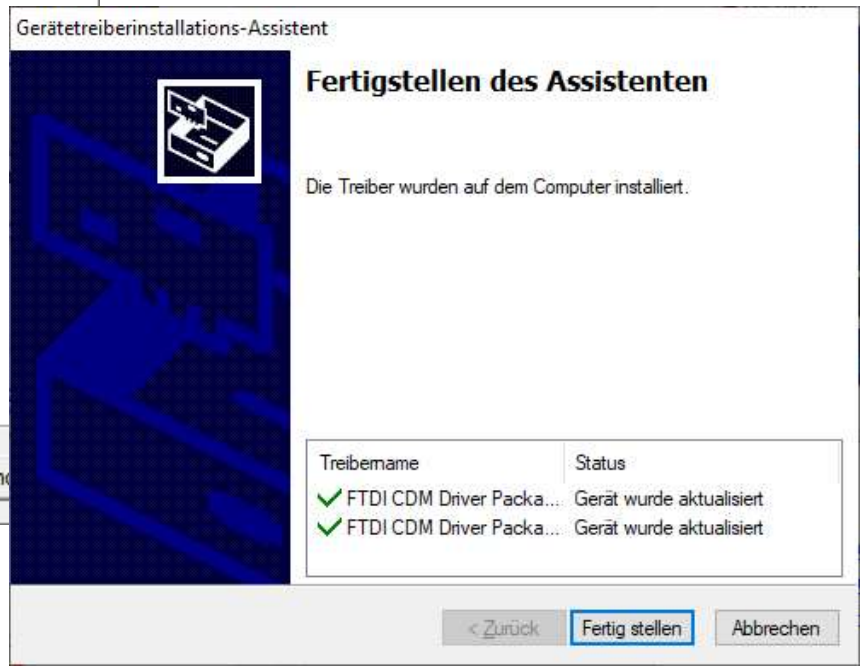
Important – line up the pins to outer most side.

Arduino IDE Settings : ATmega328p, Duemilanove, Programmer: AVRISP mkII

Press reset button *immediately* after you see the upload… in IDE.

Foca Virtual COM Port Installation

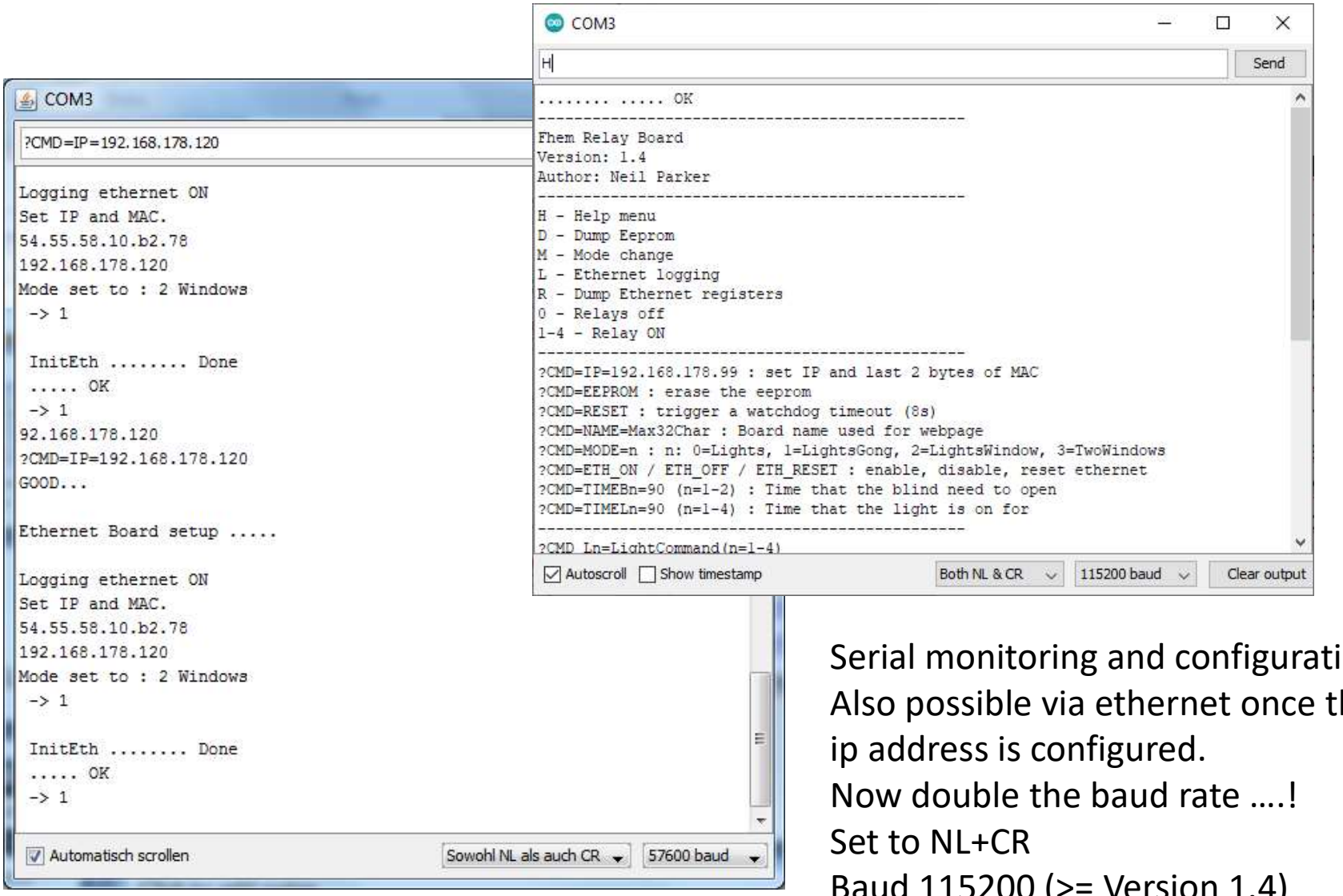




Download the setup executable
Extract the setup.exe
Run as Administrator !!!!!!

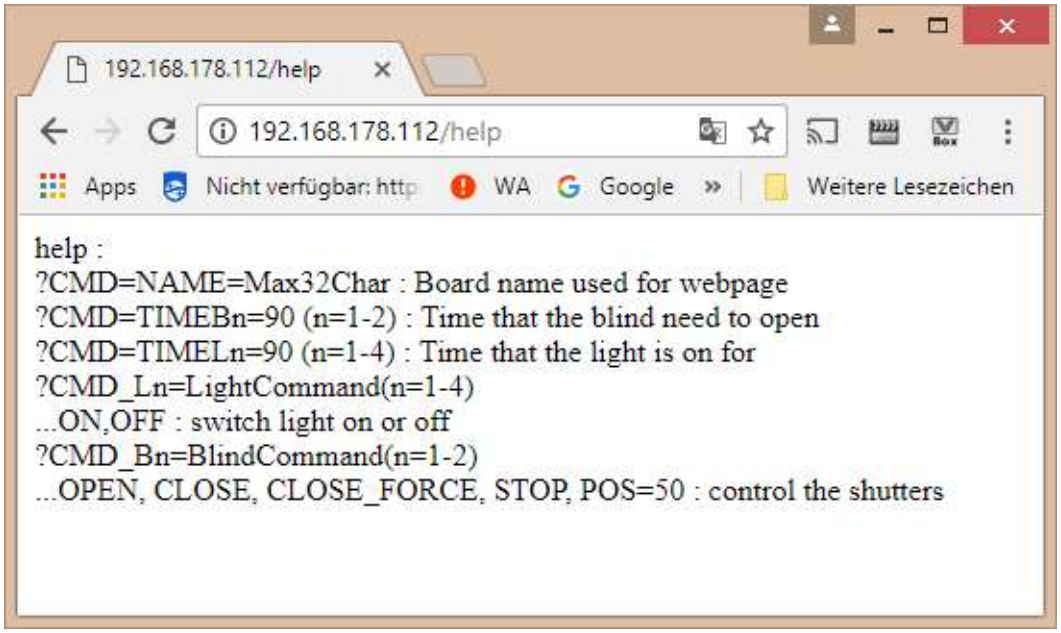
https://ftdichip.com/drivers/vcp-drivers/
https://ftdichip.com/wp-content/uploads/2020/08/AN_396-FTDI-Drivers-Installation-Guide-for-Windows-10.pdf

Board Configuration



Serial monitoring and configuration
Also possible via ethernet once the ip address is configured.
Now double the baud rate ….!
Set to NL+CR
Baud 115200 (>= Version 1.4)

Board Status and Configuration via IP



Board Configuration via IP (Timer)

- http://192.168.178.106/help
- Light timer off
  http:// 192.168.178.106/?CMD=TIMEL4=0
- Light timer 90s
  http:// 192.168.178.106/?CMD=TIMEL4=90
- Press and hold the light switch to switch on light without a timer

Board Status last error.

1	WaitUntilPhyFinished	15000us SPI MISTAT_BUSY timeout
2	sendSPI	40000 cycles timeout
3	enc28j60PacketReceive	packet length max 1000 exceeded
4	enc28j60PacketReceive	CRC

5	enc28j60PacketReceive	uint8_t tmpEIR = enc28j60Read(EIR);
		if((tmpEIR & (EIR_RXERIF))
		|| (enc28j60Read(ECON1) & (ECON1_RXRST))
		)

6	enc28j60PacketReceive	if((tmpEIR & (EIR_TXERIF)) || (enc28j60Read(ECON1) & (ECON1_TXRST)))
7	enc28j60PacketSend	timeout waiting for last transmission to complete (1mS)
10	linkup missing	No cable link
11	Chip configuration changed	ENC chip configuration has changed
12	watchdog	No received TCP command for 10s