

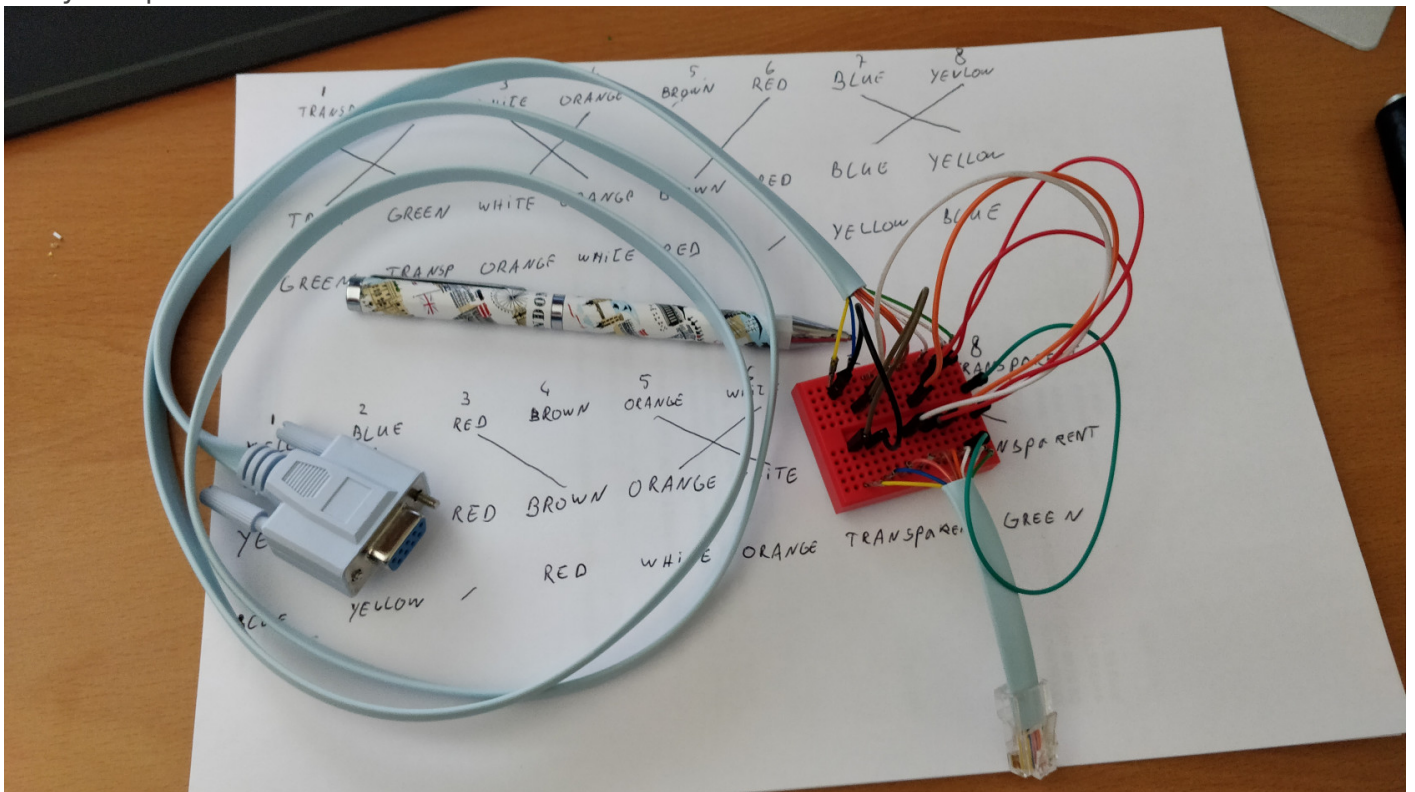
# apu02 Cables

To connect the Moxa with my apus I had to customize the cables I got from [aliexpress](#).

Till now I never had to create my custom serial console cable, so to me this was a new experience.

## Finding the combination

I first had to find out the correct combination of cables since it did not work with these cables right away so I put a breadboard in between the cables.



To connect the wires to the breadboard I did crimp connectors to them.



For this I used a crimping tool and a set of connectors.



Then the fun started, based on the information from [pcengines](#) and from the [Moxa CN2510 Manual](#) about the expected wiring I tried to apply it to the existing cable.

## Check the cable

I checked the wiring using a Fluke 115.



## Pin combinations

Finally I had the correct wiring transferred to my cable.

For the RJ45 the Moxa needs the following wiring:

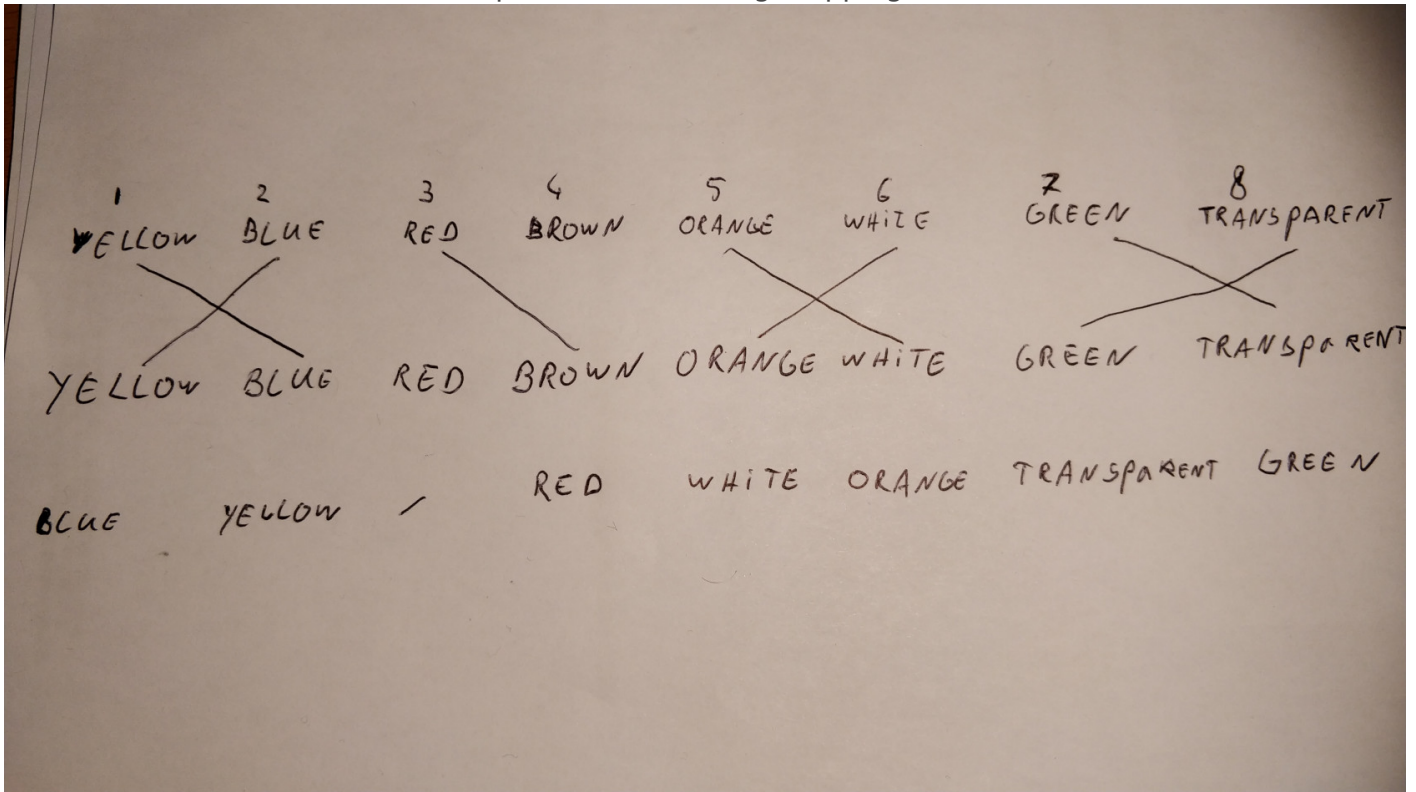
Pin	Collor	Signal Type
1	transparent	DSR
2	green	RTS
3	white	GND
4	orange	TxD
5	brown	RxD
6	red	DCD
7	blue	CTS
8	yellow	DTR

From the DB9 Connector these colors are assignend to the follwing Pins, the apu expects a wiring of a null modem cable.

Pin	Collor	Signal Type
1	brown	DCD
2	red	RxD
3	white	TxD
4	green	DTR
5	orange	GND
6	blue	DSR
7	transparent	RTS
8	yellow	CTS

The mapping

Based on this information I came up with the following mapping:

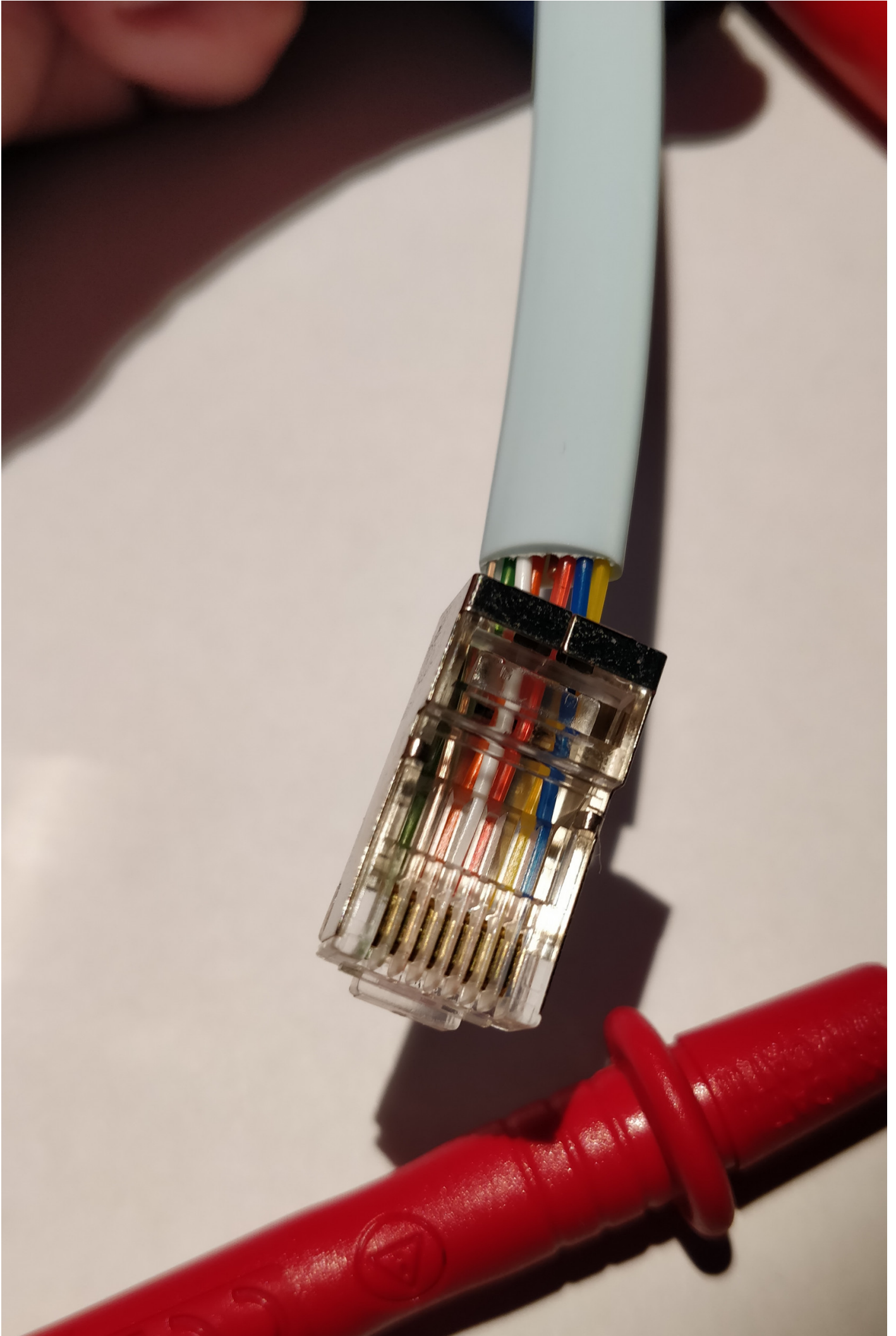


Pin	Collor
1	blue
2	yellow
3	-
4	red
5	white
6	orange
7	transparent
8	green

The the RJ45 crimping tool came to use.



And the custom cable got produced.



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