

Medjed Stage Controller Board

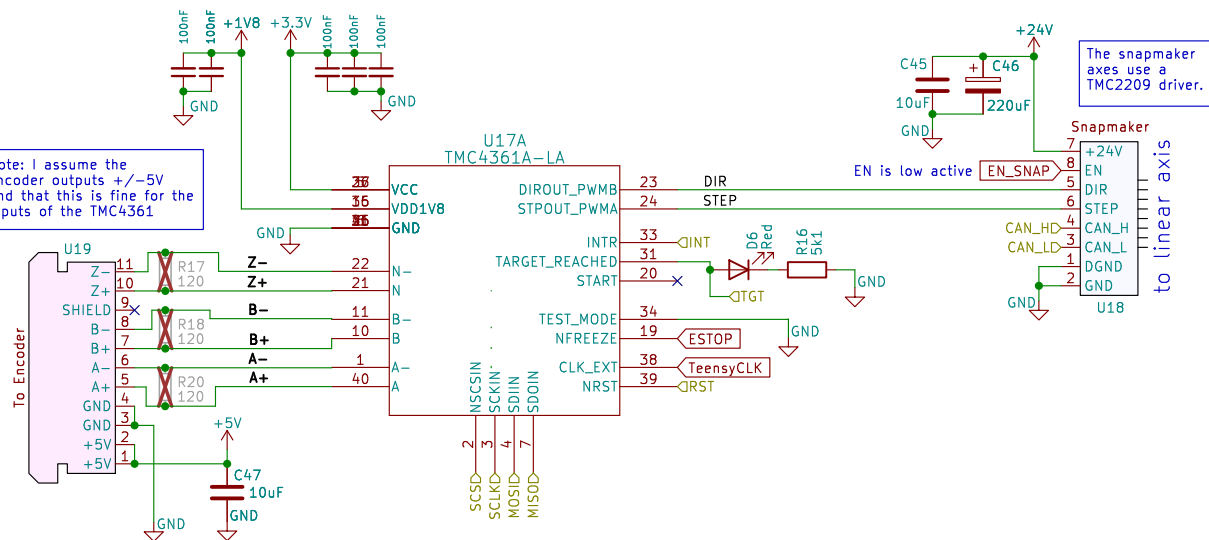
To be used with Teensy 4.1 board

Sheet: /	
File: medjed-mainboard.kicad_sch	
Title: github.com/openMLA/Medjed	
Size: A4	Date: 07-05-2023
KiCad E.D.A. kicad 7.0.1	Rev: 0.1.3
	Id: 1/4

Encoder & Tape link

The Encoder uses differential signalling (RS422) for data output. The max FPC length is about ~75cm. The max spec data rate for the RLC2IC is 15MHz – or 20m wavelength. So we don't really NEED termination resistors.

Note: I assume the encoder outputs +/-5V and that this is fine for the inputs of the TMC4361



Sheet: /Axis X/
File: enc_axis.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad 7.0.1

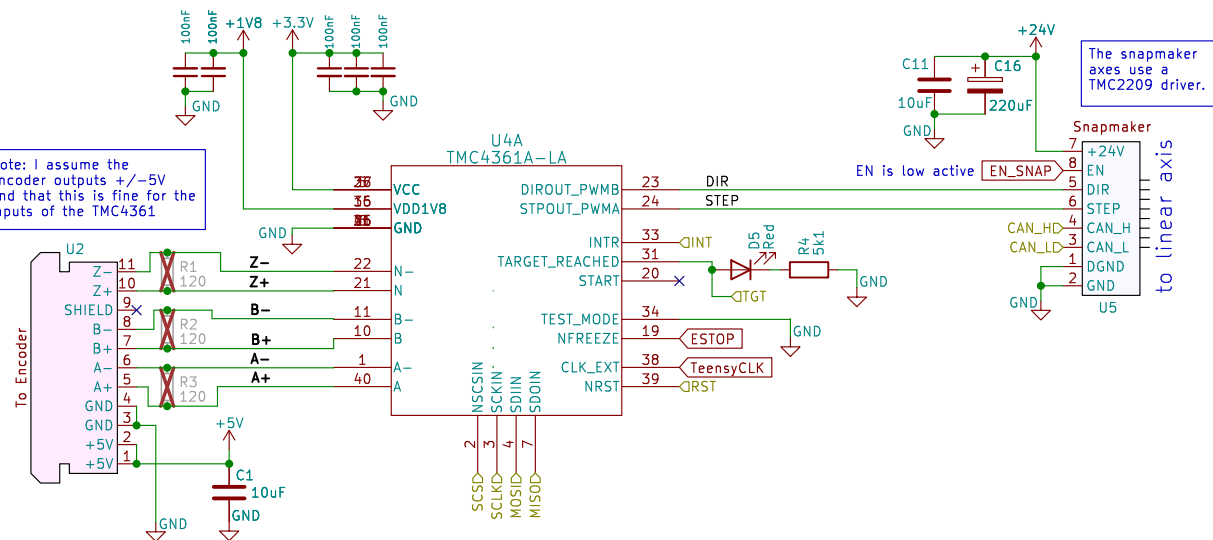
Rev:

Id: 2/4

Encoder & Tape link

The Encoder uses differential signalling (RS422) for data output. The max FPC length is about ~75cm. The max spec data rate for the RLC2IC is 15MHz – or 20m wavelength. So we don't really NEED termination resistors.

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The snapmaker axes use a TMC2209 driver.

Sheet: /Axis Y/
File: enc_axis.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad 7.0.1

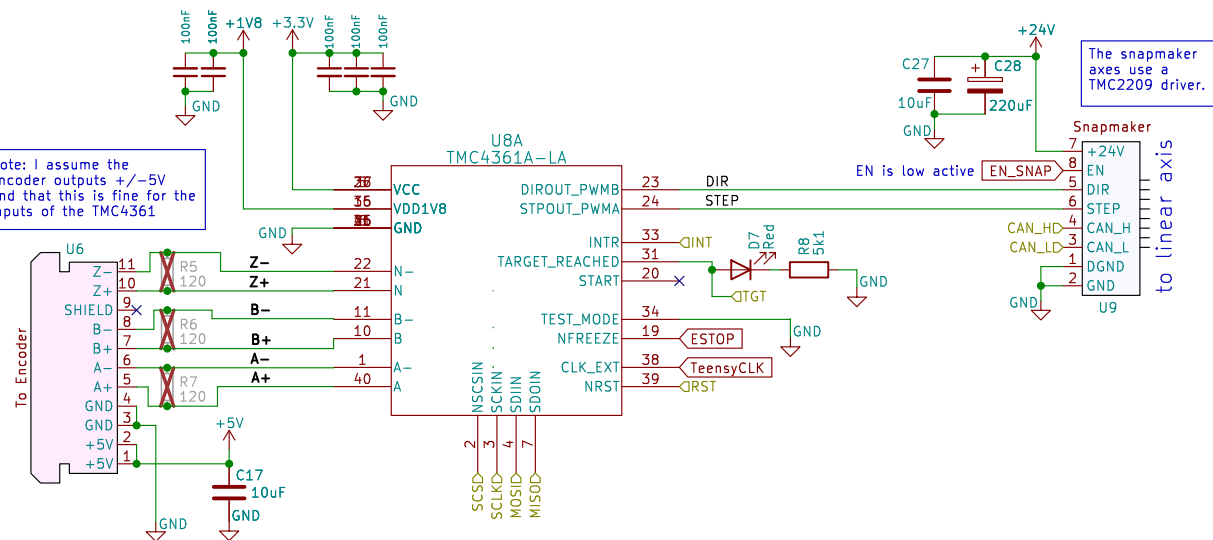
Rev:

Id: 3/4

Encoder & Tape link

The Encoder uses differential signalling (RS422) for data output. The max FPC length is about ~75cm. The max spec data rate for the RLC2IC is 15MHz – or 20m wavelength. So we don't really NEED termination resistors.

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Sheet: /Axis Z/
File: enc_axis.kicad_sch

Title:

Size: A4
KiCad E.D.A. kicad 7.0.1

Date:

Rev:
Id: 4/4