

## Medjed Stage Controller Board

To be used with Teensy 4.1 board

Sheet: /  
File: medjed-mainboard.kicad\_sch

### Title:

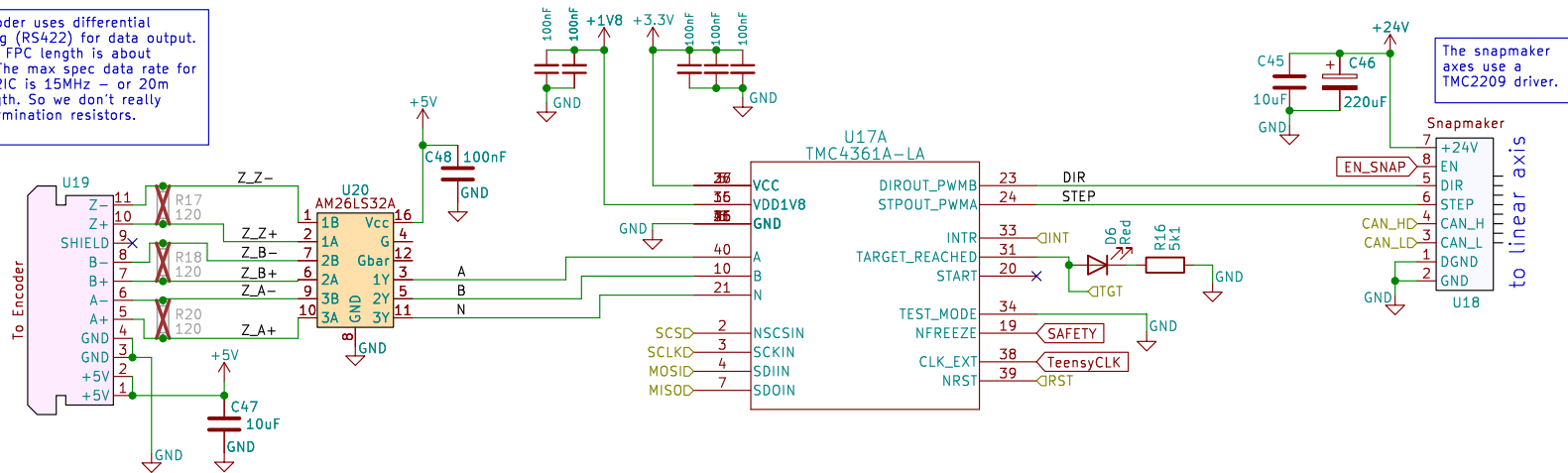
Size: A4  
KiCad E.D.A. kicad 7.0.1

Date: 27-04-2023

Rev: 0.1.2

Id: 1/4

The Encoder uses differential signalling (RS422) for data output. The max FPC length is about ~75cm. The max spec data rate for the RLC21C is 15MHz – or 20m wavelength. So we don't really NEED termination resistors.



The snapmaker axes use a TMC2209 driver.

Sheet: /Axis X/  
File: enc\_axis.kicad\_sch

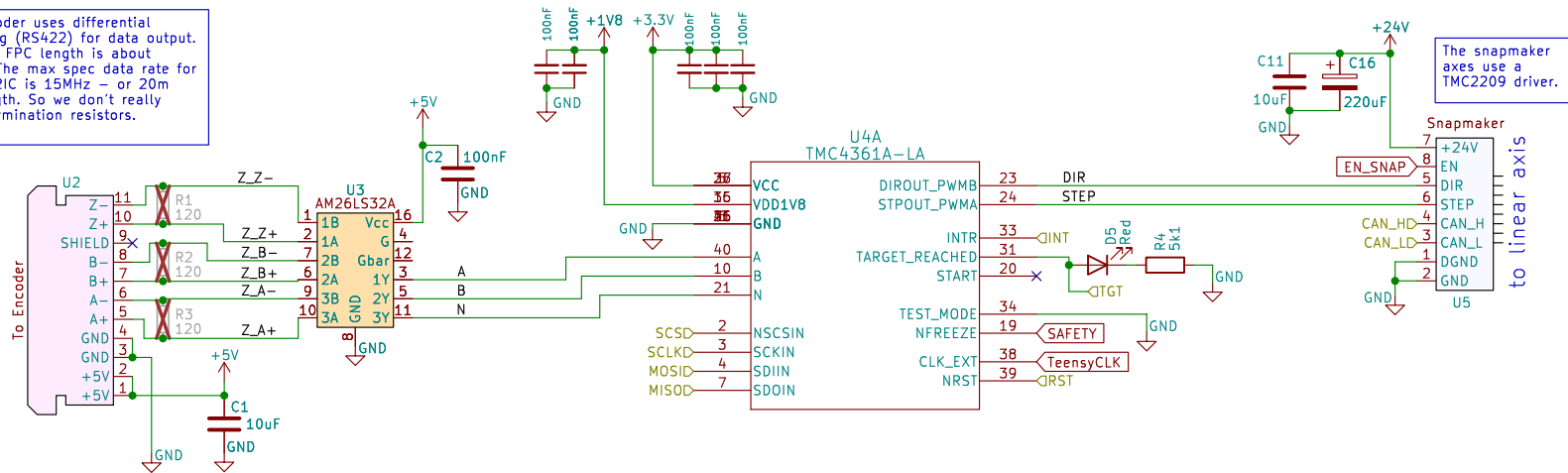
# Title:

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

Date:

Rev:  
Id: 2/4

The Encoder uses differential signalling (RS422) for data output. The max FPC length is about ~75cm. The max spec data rate for the RLC21C is 15MHz – or 20m wavelength. So we don't really NEED termination resistors.



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Sheet: /Axis Y/  
File: enc\_axis.kicad\_sch

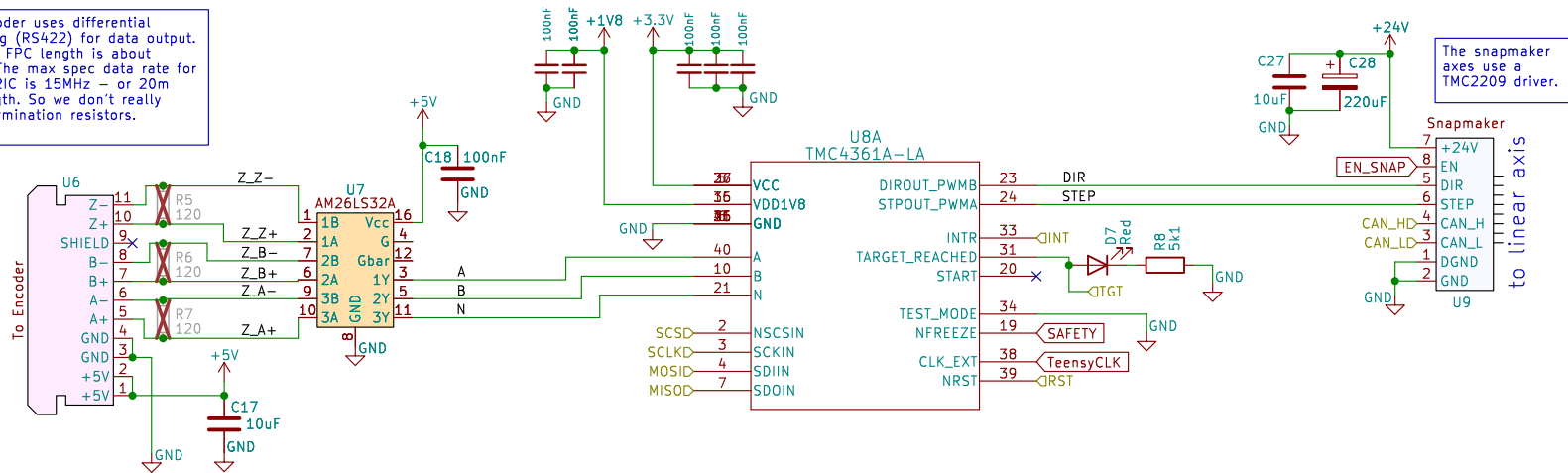
# **Title:**

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

Date:

Rev:  
Id: 3/4

The Encoder uses differential signalling (RS422) for data output. The max FPC length is about ~75cm. The max spec data rate for the RLC21C is 15MHz – or 20m wavelength. So we don't really NEED termination resistors.



The snapmaker axes use a TMC2209 driver.

Sheet: /Axis Z/  
File: enc\_axis.kicad\_sch

# Title:

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

Date:

Rev:  
Id: 4/4