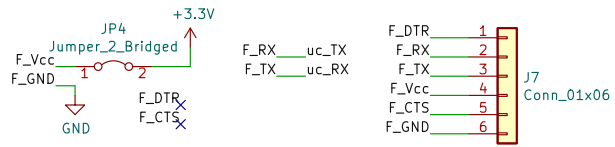
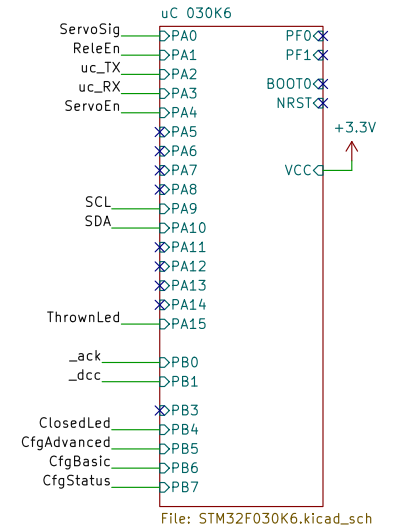
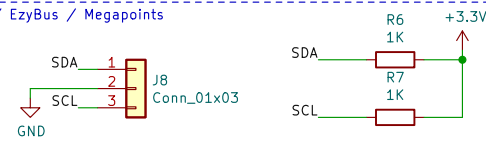


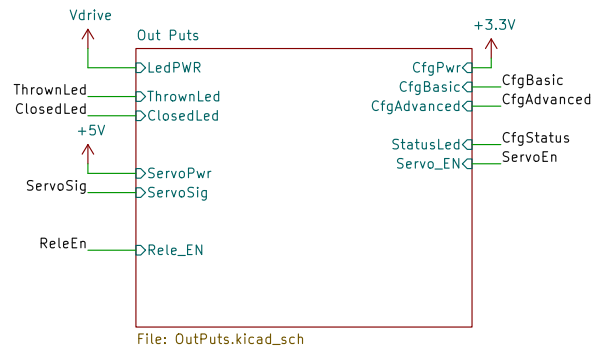
# FTDL\_UART



# I2C / EzyBus / Megapoints

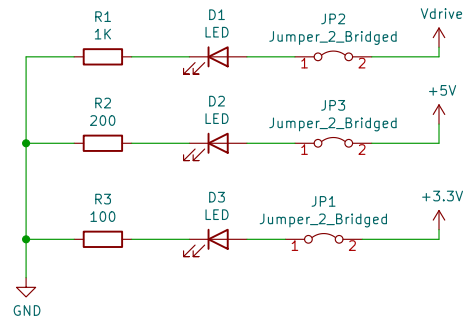


File: STM32F030K6.kicad\_sch

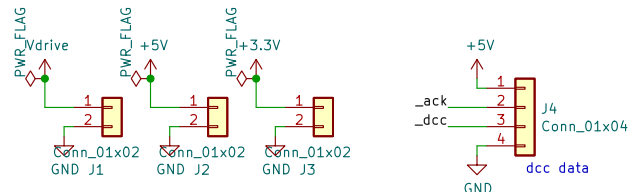


File: OutPuts.kicad\_sch

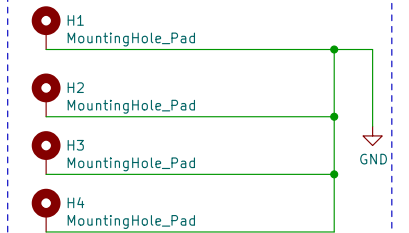
# Status Leds



# Inputs



# Mount Holes micro



Sheet: /  
File: DccDecoder.kicad\_sch

# Title:

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Date:

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Led Resistance Calc for 15ma and 2.5V led:

12 V -> 9.5/15\*1000 -> 633 Ohm  
14 V -> 11.5/15\*1000 -> 766 Ohm  
20 V -> 17.5/15\*1000 -> 1166 Ohm

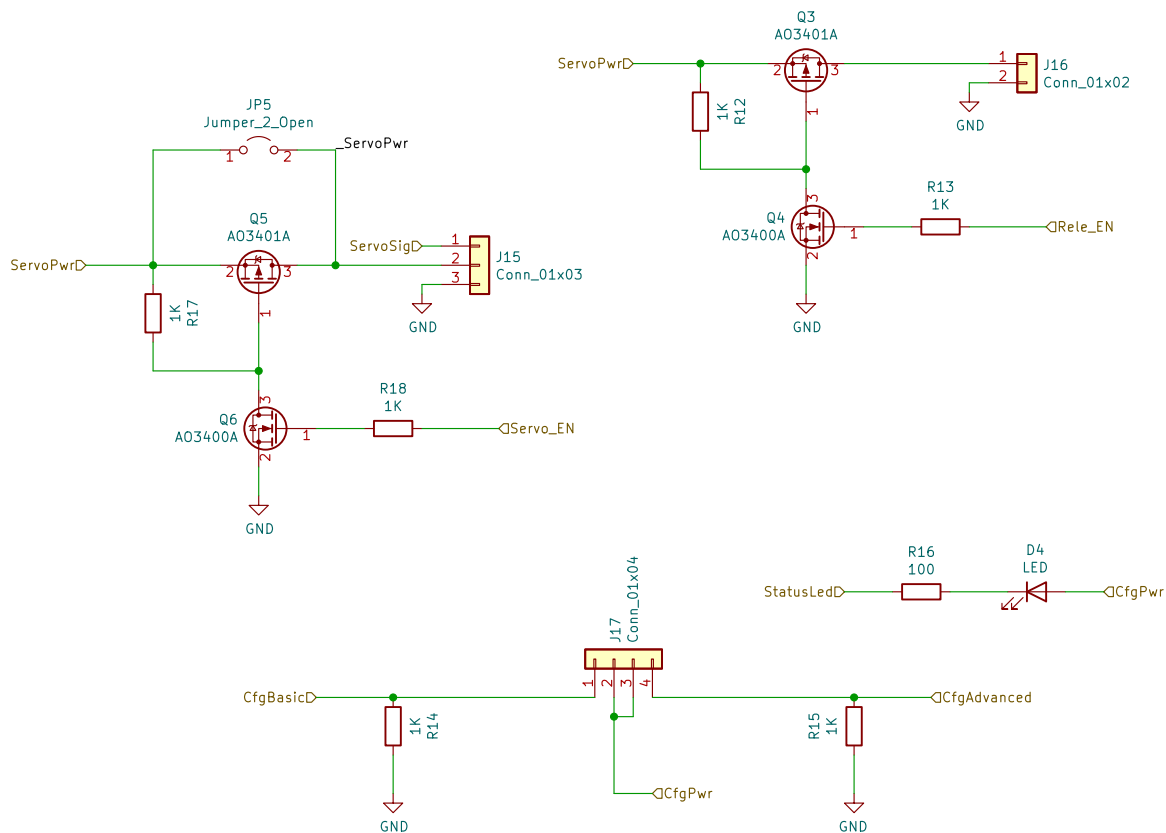
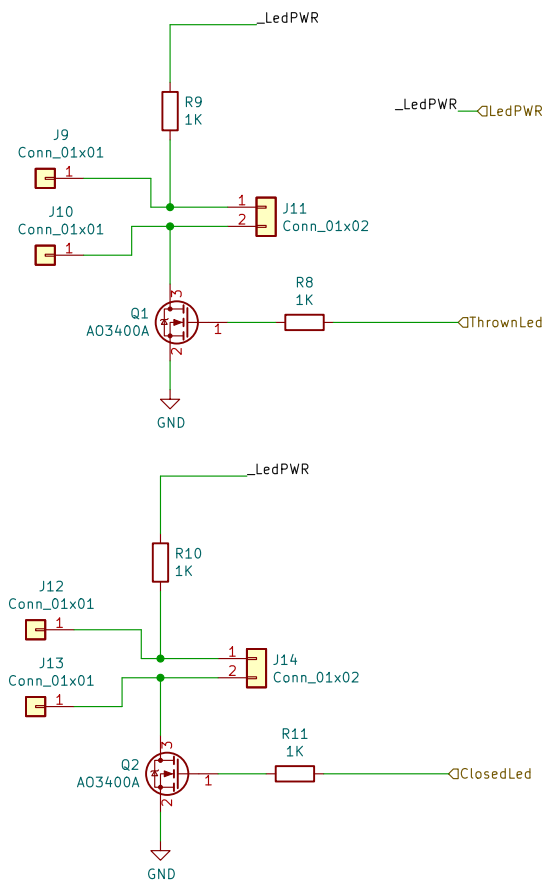
Using a 1K resistor:

In	\	Led: 2V	2.5V	3V
12V		10ma	9.5ma	9ma
14V		12ma	11.5ma	11ma
20V		18ma	17.5ma	17ma

Expected case:  
12V input, & 2.5V led -> near 10 mAmps, ligh ok

WorstCases:  
12V input, & 3V led -> 9 mAmps, Acceptable  
20V input, & 2V led -> 18 mAmps, under <20ma specs

Future: add a 1K trimmer with 500 Ohm in series



Sheet: /Out Puts/  
File: OutPuts.kicad\_sch

**Title:**

Size: A4

Date:

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**Rev:**

Id: 2/3

