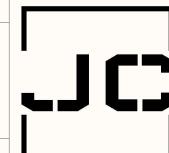
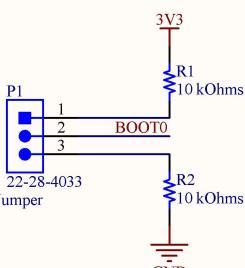


QUEEN'S
SPACE
ENGINEERING
TEAM

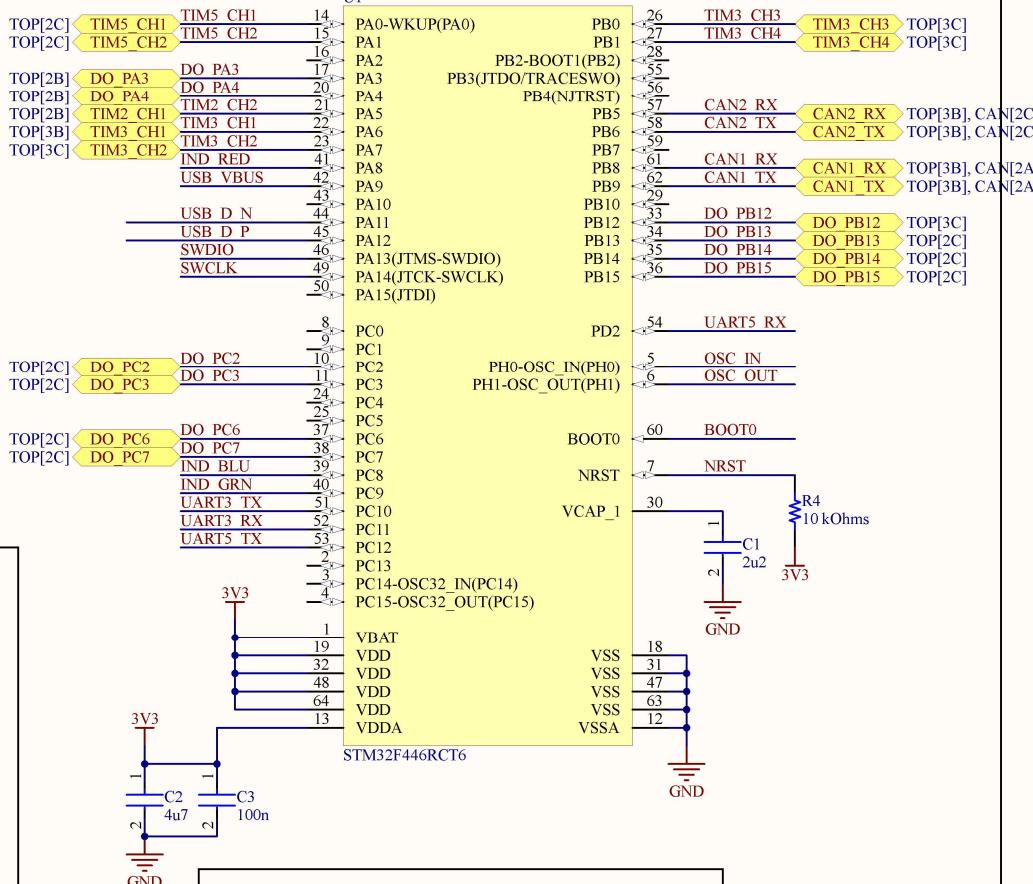
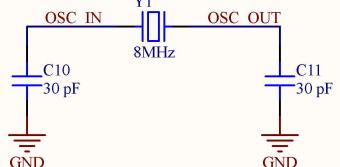
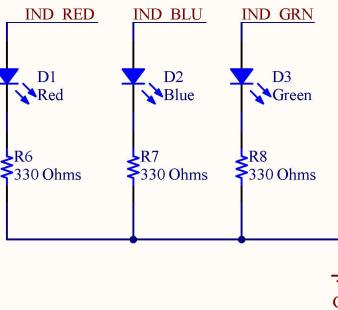


MCU

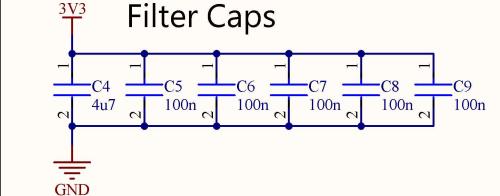
Boot Jumpers



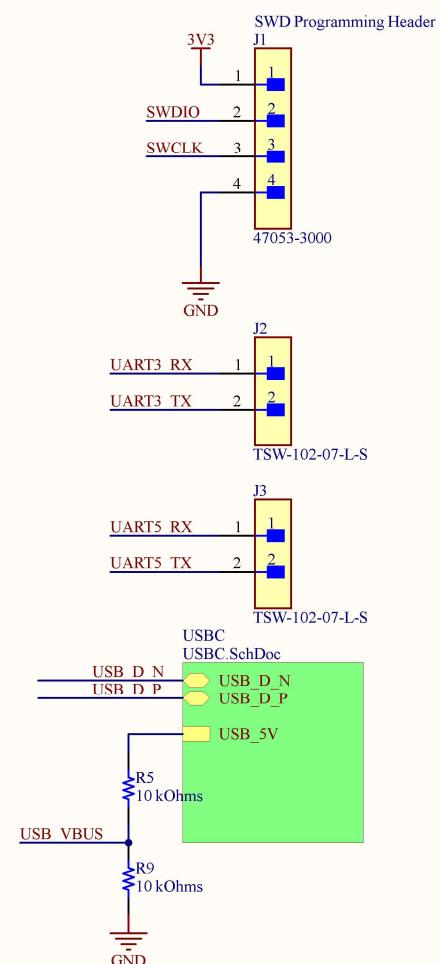
Indication



Filter Caps



MCU Connectors



Title: **ARM Control Board**

Page Contents: **ARM_MCU.SchDoc**

Drawn By: **Jacob Chisholm** Checked By: **None**

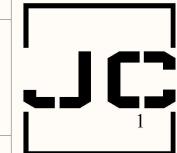
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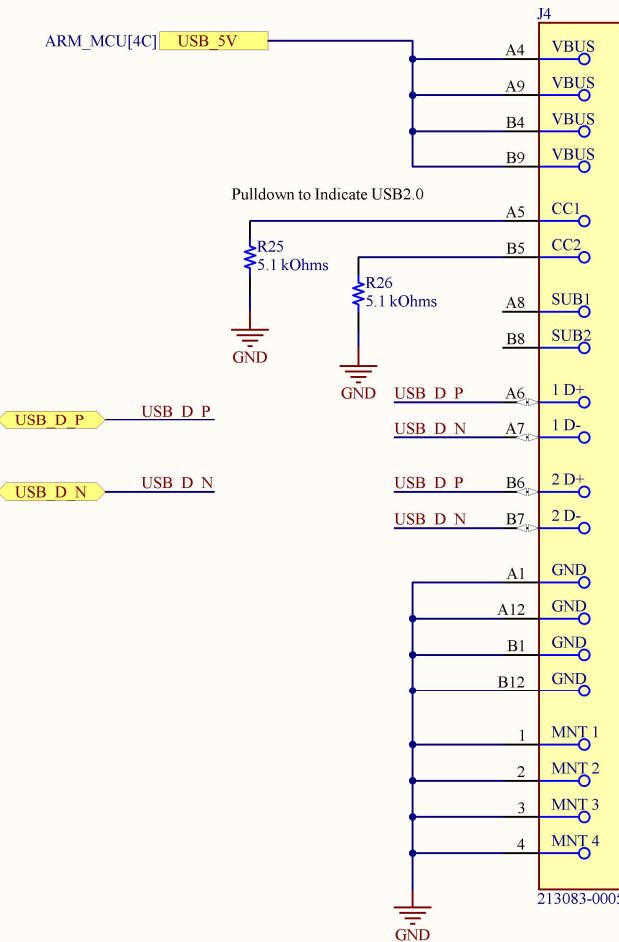
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USB C Connector



Title: **ARM Control Board**

Page Contents: **USBC.SchDoc**

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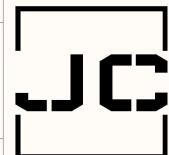
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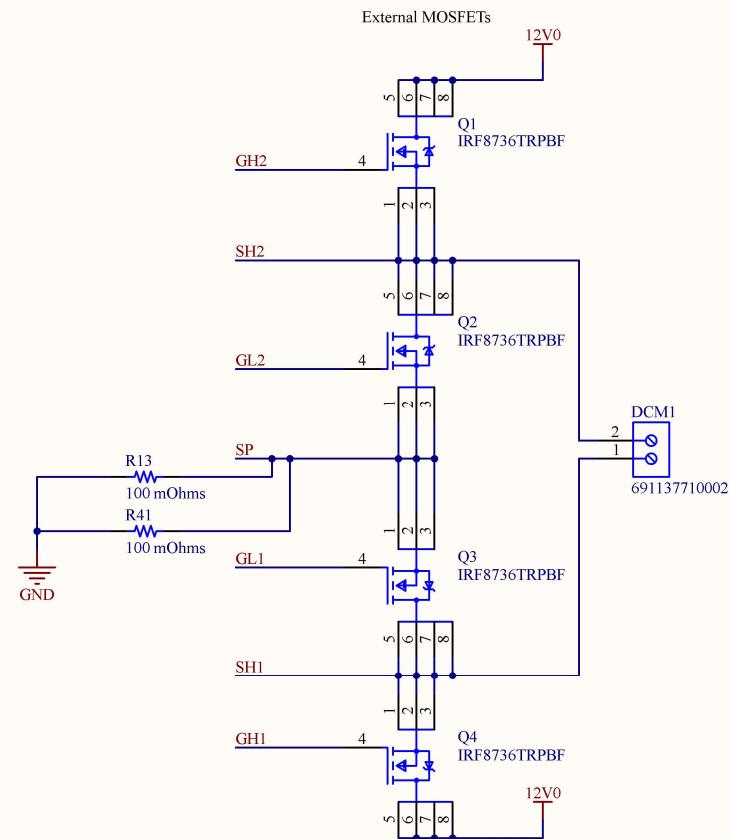
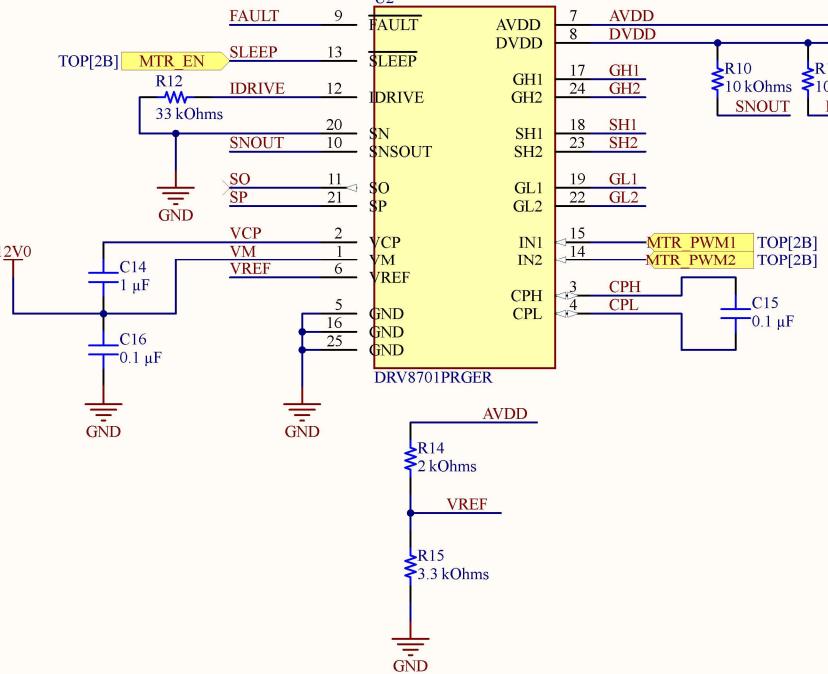
File: **C:\Users\Jacob\Documents\GitHub\robocopyright\Arm_Control_Board\USBC.SchDoc**



Motors

H-Bridge

Used to Control a Linear Actuator in the Wrist



Title: **ARM Control Board**

Page Contents: **ARM_Motor.SchDoc**

Drawn By: **Jacob Chisholm** Checked By: **None**

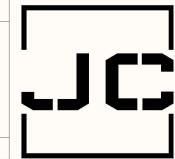
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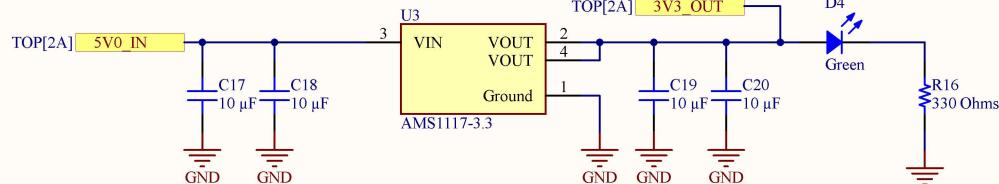
Email: JacobChisholm101@gmail.com Website: <https://jchisholm204.github.io>

File: **C:\Users\Jacob\Documents\GitHub\robocopyright\Arm_Control_Board\ARM_Motor.SchDoc**



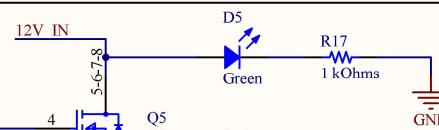
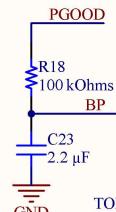
Power

5V -> 3V3 LDO with Indicator LED



12V -> 5V (10A)

Going to be a 12-5V buck converter which will get 12V from an Anderson connector, the 5V powers the servos, and then gets stepped down to 3V3



Title: **ARM Control Board**

Page Contents: **ARM_PWR.SchDoc**

Drawn By: **Jacob Chisholm** Checked By: **None** Matthew Szalawiga

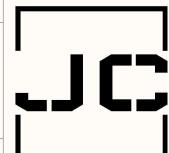
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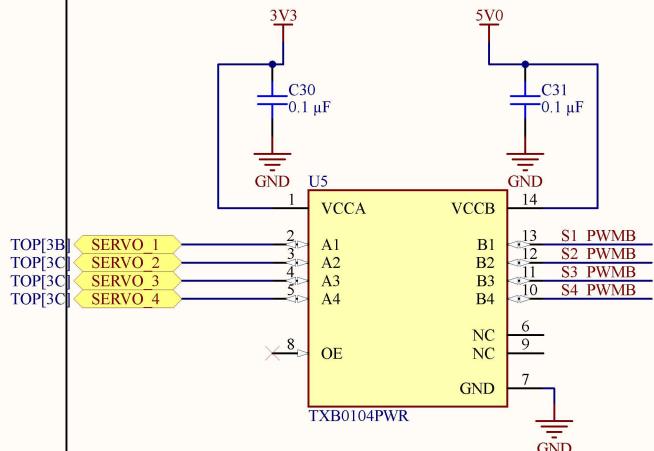
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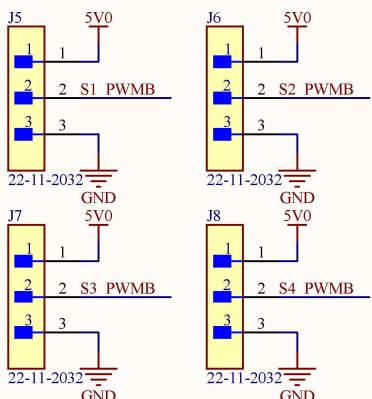


Servo Logic Level Shifting

While most 5V Servos support 3V3 Logic,
cannot guarantee the new ones will



Servo Headers



Title: **ARM Control Board**

Page Contents: **ARM_SERVO.SchDoc**

Drawn By: **Jacob Chisholm** Checked By: **None**

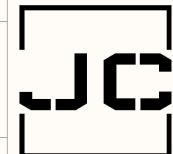
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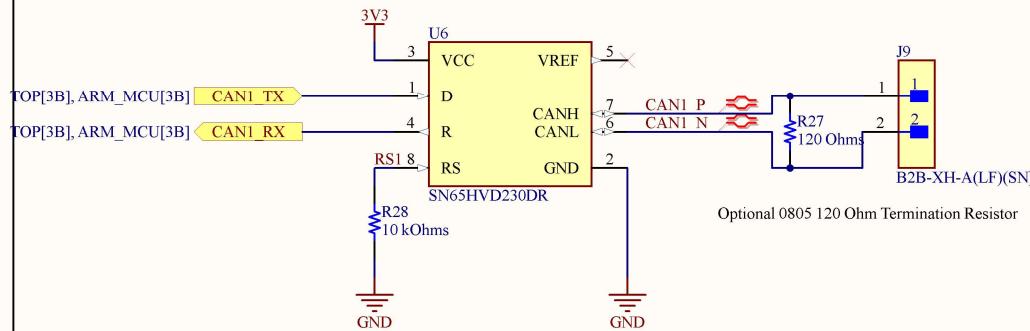
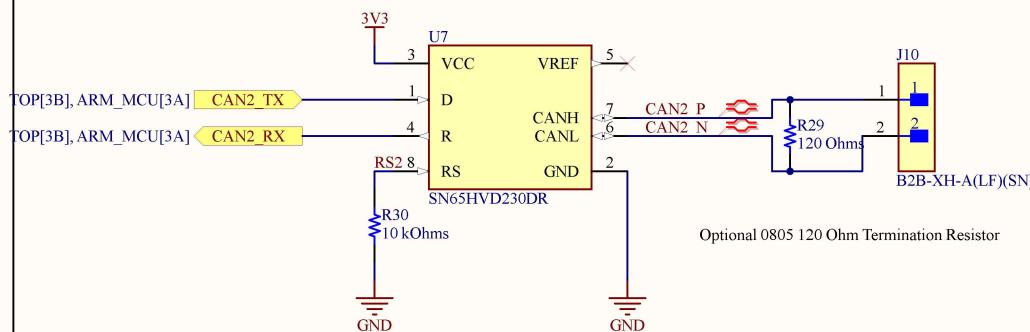
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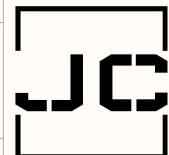
Email: **JacobChisholm101@gmail.com** Website: **<https://jchisholm204.github.io>**

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CAN1**CAN2**Title: **ARM Control Board**Page Contents: **CAN.SchDoc**Drawn By: **Jacob Chisholm** | Checked By: **None**Size: **A4** | Number: **7** | Revision: *********Date: **1/10/2025** | Time: **5:50:24 PM** | Sheet **7** of **9**

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Limit Switches

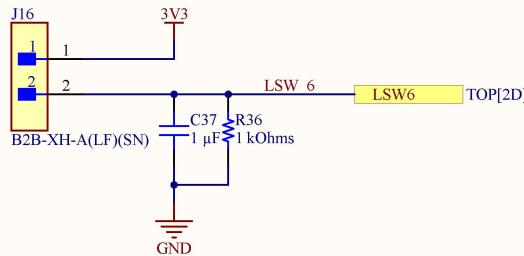
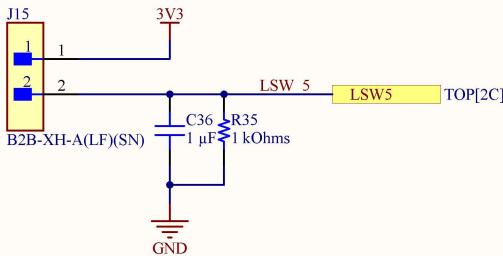
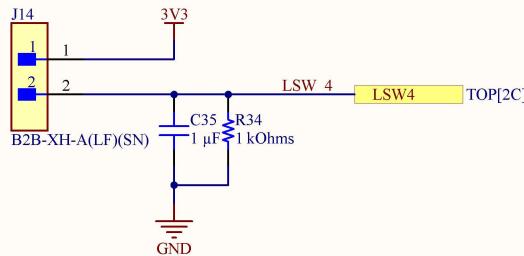
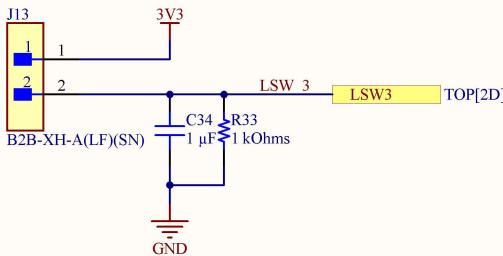
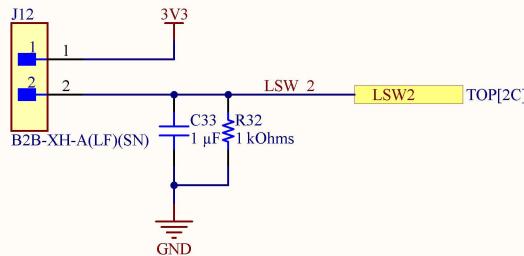
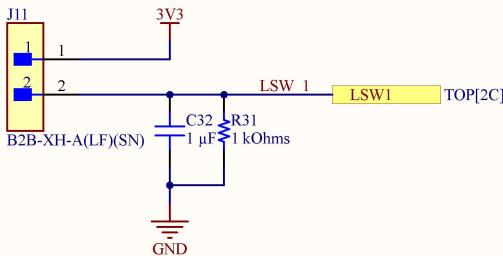
LSW_n are limit switches that just need to go to Digital GPIO

SPDT Rollers operated as SPST switches

Switch Wiring:

Pin 1: NO

Pin 2: Common



Title: **ARM Control Board**

Page Contents: **ARM_LIMIT_SW.SchDoc**

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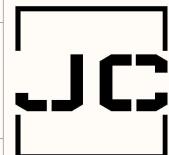
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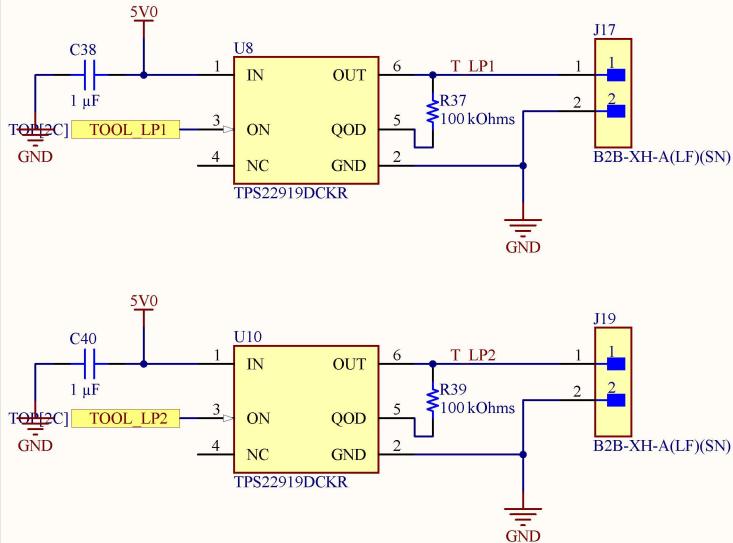
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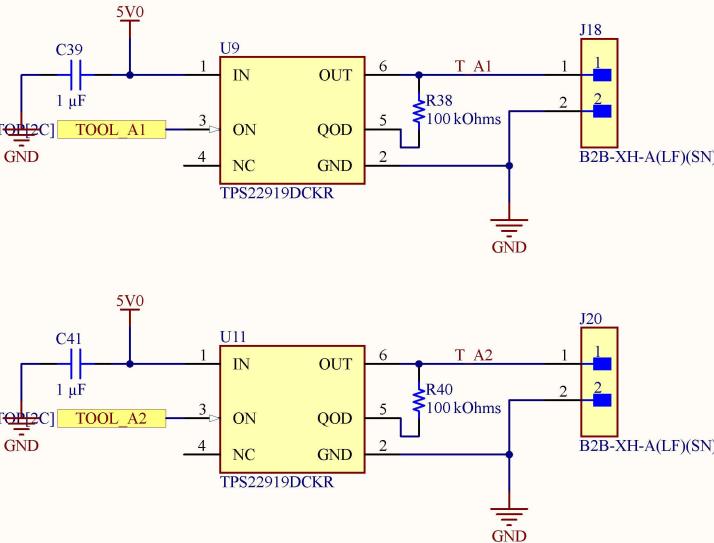
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A

Wrist Laser Pointers

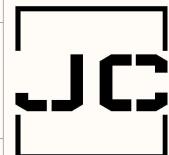
B

Additional

C

Title: **ARM Control Board**Page Contents: **ARM_TOOLING.SchDoc**Drawn By: **Jacob Chisholm** Checked By: **None**Size: **A4** Number: **9** Revision: *********Date: **1/10/2025** Time: **5:50:25 PM** Sheet **9** of **9**

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D

A

B

C

D