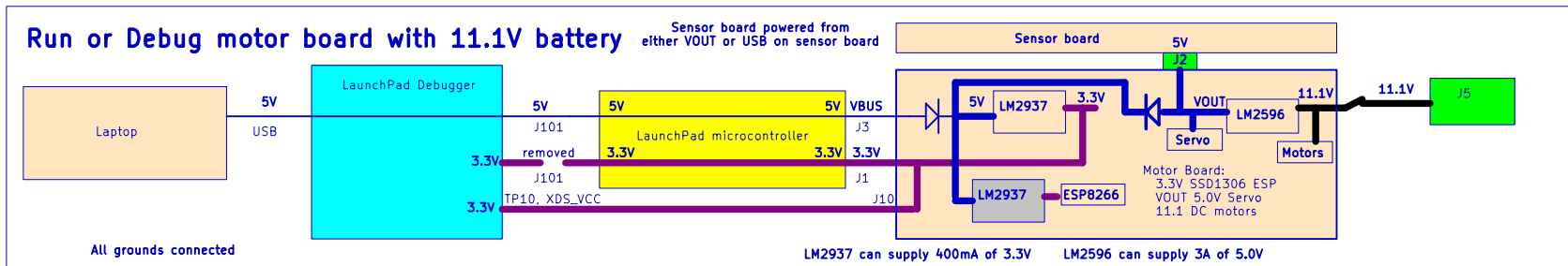
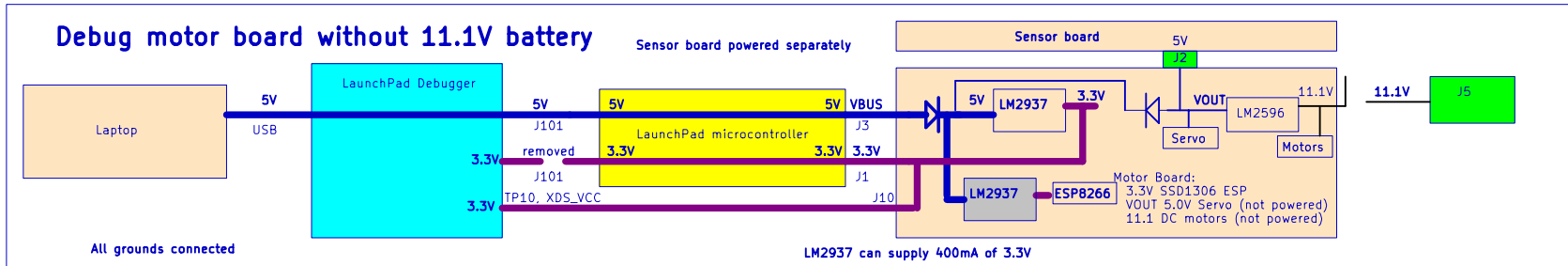


- H1 Hole
- H2 Hole
- H3 Hole
- H4 Hole

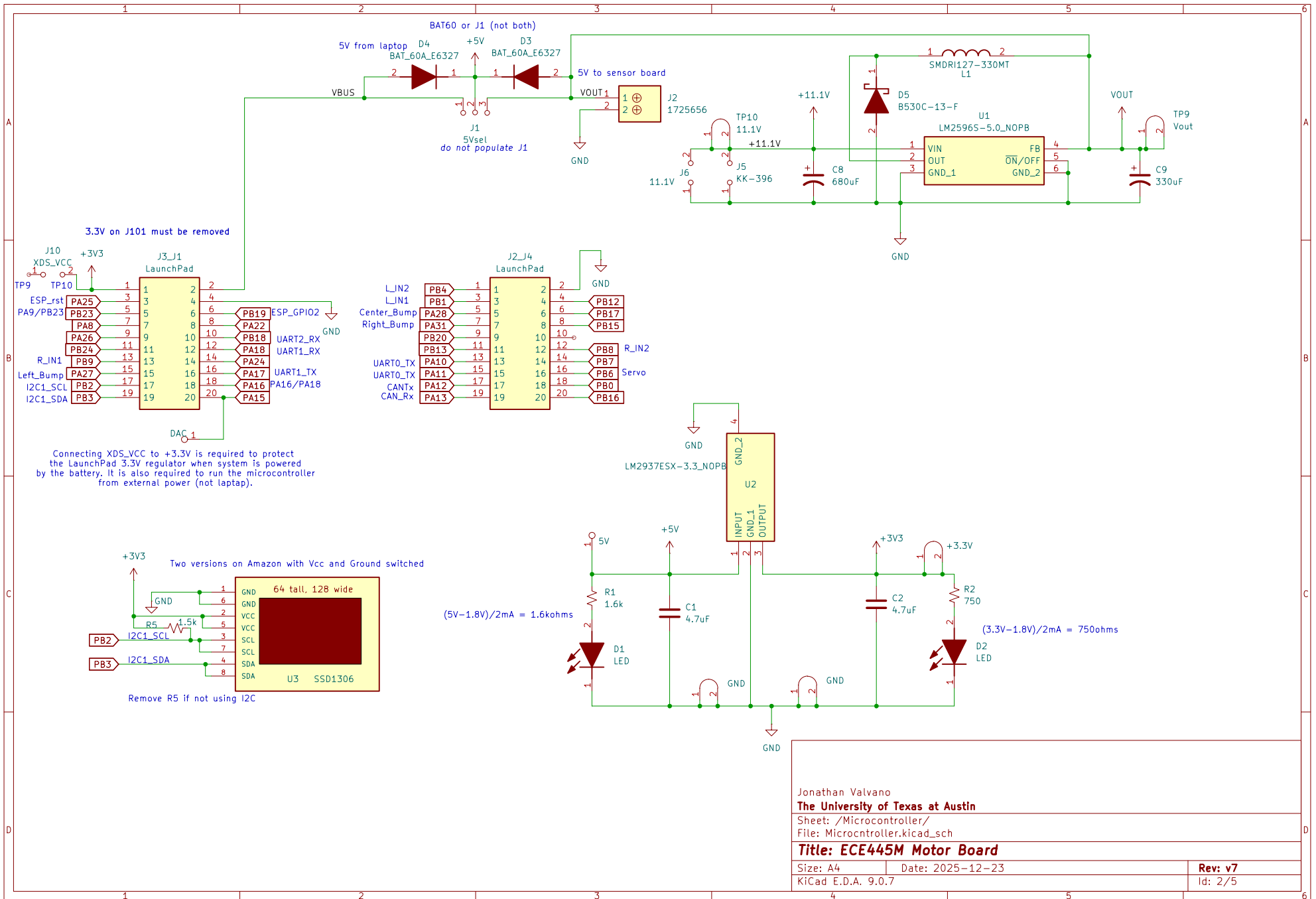


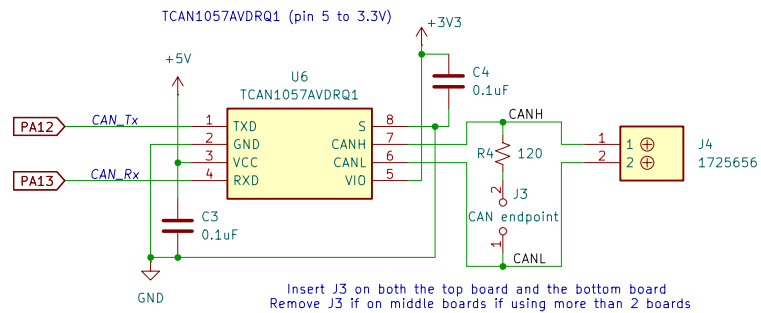
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 Sheet: /  
 File: MotorBoard.kicad\_sch

**Title: ECE445M Motor Board**

Size: A4 | Date: 2025-12-23  
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Rev: v7  
 Id: 1/5





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Sheet: /CAN Interface/

File: CAN.kicad\_sch

**Title: ECE445M Motor Board**

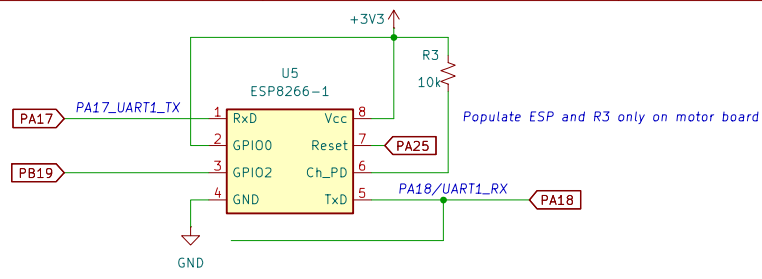
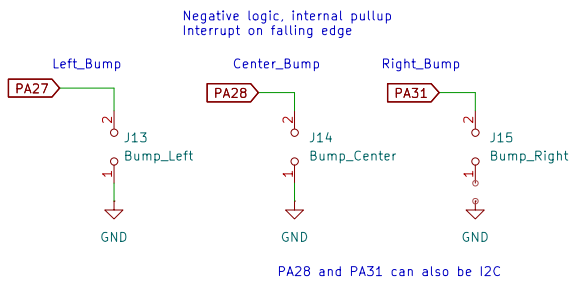
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Date: 2025-12-23

Rev: v7

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Id: 3/5

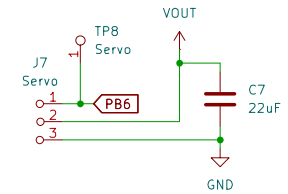
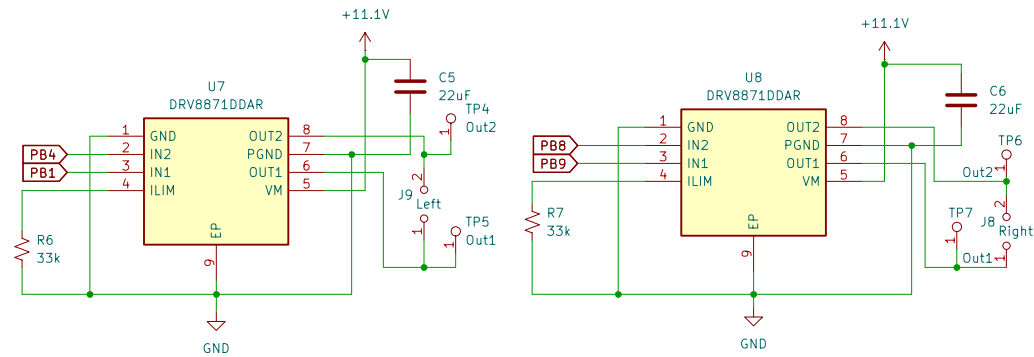


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Sheet: /Inputs/	
File: Inputs.kicad_sch	
<b>Title: ECE445M Motor Board</b>	
Size: A4	Date: 2025-12-23
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PINCM	Pin	Mode	Timer	Usage
17	PB4	Mode4	TIMA1_C0	Left Motor, IN2, PWM low for forward, GPIO high for reverse
13	PB1	Mode4	TIMA1_C1	Left Motor, IN1, GPIO high for forward, PWM low for reverse
25	PB8	Mode4	TIMA0_C0	Right Motor, IN2, PWM low for forward, GPIO high for reverse
26	PB9	Mode4	TIMA0_C1	Right Motor, IN1, GPIO high for forward, PWM low for reverse
23	PB6	Mode7	TIMG6_C0	Steering Servo PWM high 20ms period

$I_{trip} = 65kV/RILIM(kohm)$ .  
 If  $RILIM = 33 k\Omega$ , the DRV8871-Q1 device  
 limits motor current to 2 A no matter  
 how much load torque is applied

IN1 IN2 have 100k internal pulldowns



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Sheet: /Motor Circuits/

File: Motor.kicad\_sch

**Title: ECE445M Robot Board**

Size: A4

Date: 2025-12-23

Rev: v7

KiCad E.D.A. 9.0.7

Id: 5/5