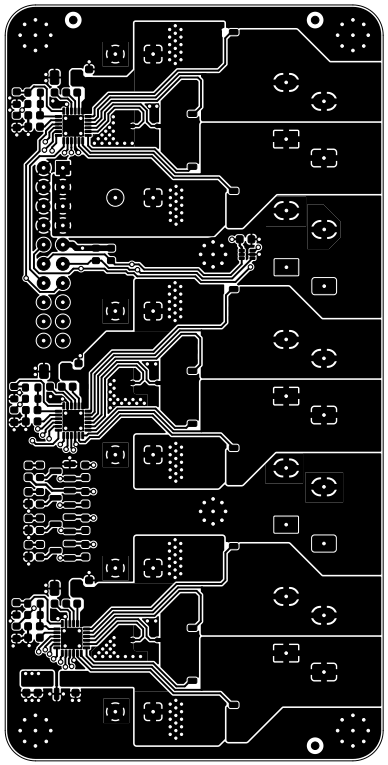

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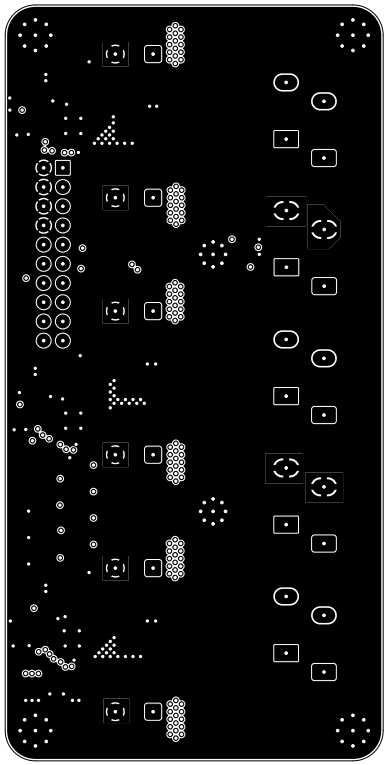
Sheet:
File: motor-controller-v3.kicad_pcb

Title: Brushed DC Motor Driver

Size: USLetter	Date: 2025-10-26	**Rev: V3**
KiCad E.D.A. 9.0.5		Id: 1/11



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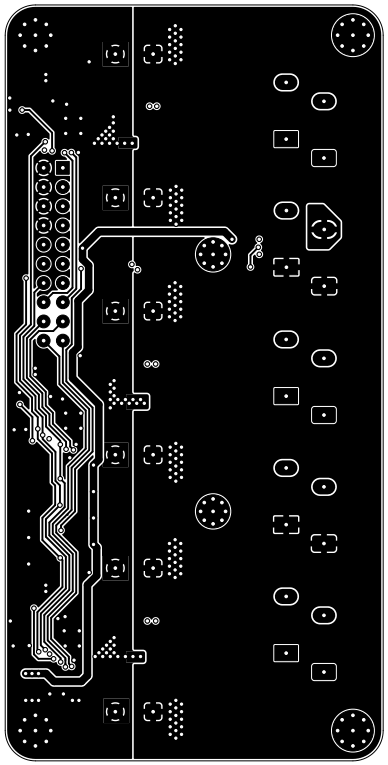
File: motor-controller-v3.kicad_pcb

Title: Brushed DC Motor Driver

Size: USLetter	Date: 2025-10-26	**Rev: V3**
KiCad E.D.A. 9.0.5		Id: 2/11



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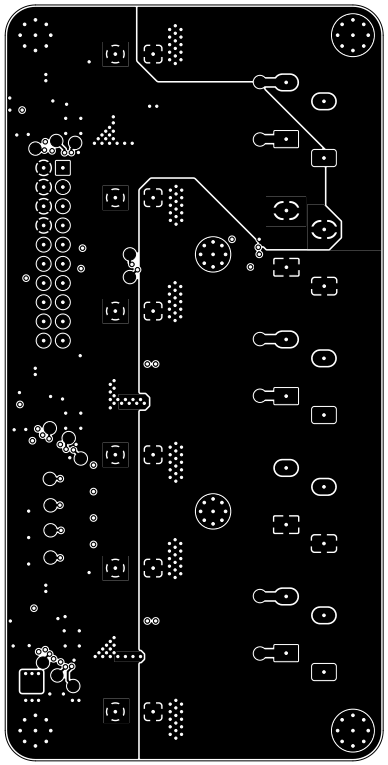
File: motor-controller-v3.kicad_pcb

Title: Brushed DC Motor Driver

Size: USLetter	Date: 2025-10-26	**Rev: V3**
KiCad E.D.A. 9.0.5		Id: 3/11



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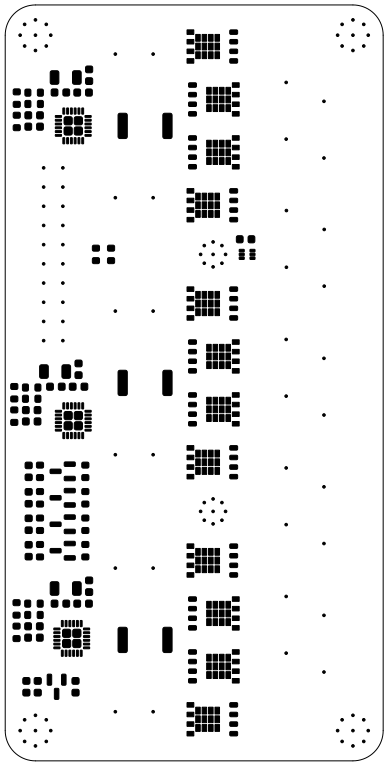
Title: Brushed DC Motor Driver

Size: USLetter	Date: 2025-10-26	**Rev: V3**
KiCad E.D.A. 9.0.5		Id: 4/11



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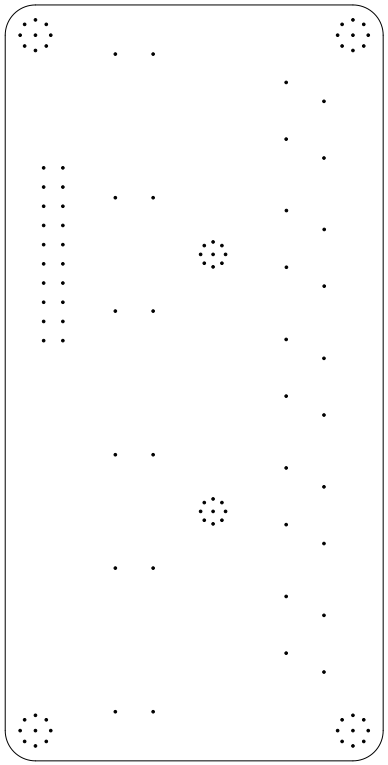
Size: USLetter	Date: 2025-10-26	**Rev: V3**
KiCad E.D.A. 9.0.5		Id: 5/11



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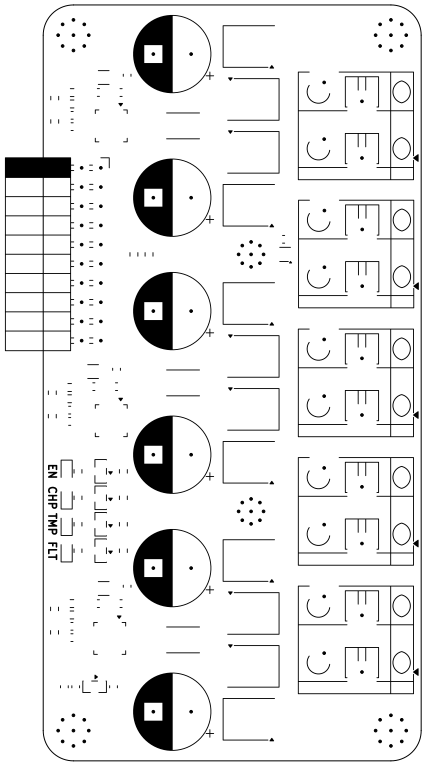
Size: USLetter	Date: 2025-10-26	**Rev: V3**
KiCad E.D.A. 9.0.5		Id: 6/11



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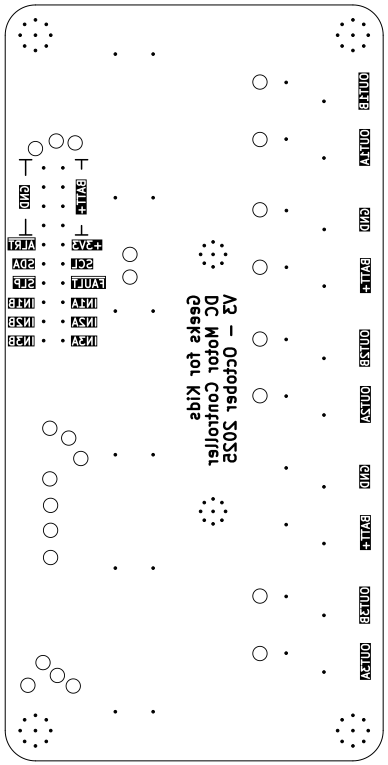
KiCad E.D.A. 9.0.5		Id: 7/11



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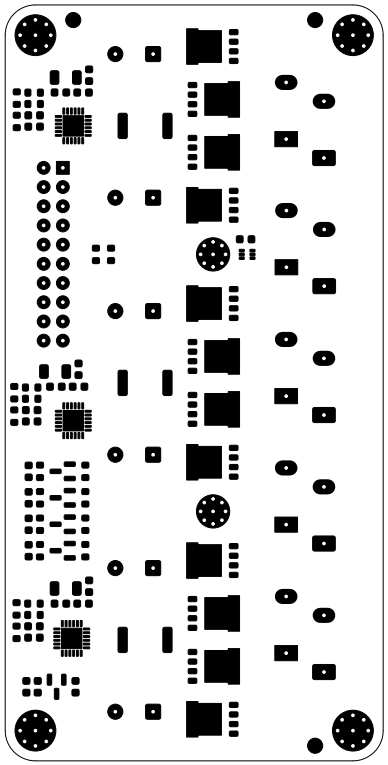
KiCad E.D.A. 9.0.5		Id: 8/11



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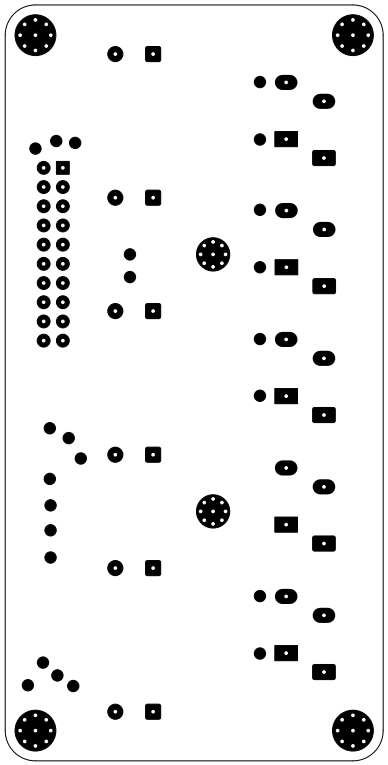

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Title: Brushed DC Motor Driver

Size: USLetter	Date: 2025-10-26	**Rev: V3**
KiCad E.D.A. 9.0.5		Id: 10/11

BOARD CHARACTERISTICS

Copper Layer Count:	4	Board Thickness:	1.6916 mm
Board overall dimensions:	50.0000 mm x 100.0000 mm		
Min track/spacing:	0.2000 mm / 0.2000 mm	Min hole diameter:	0.2997 mm
Copper Finish:	ENIG	Impedance Control:	No
Castellated pads:	No	Plated Board Edge:	No
Edge card connectors:	No		

Layer Stack

Layer Name	Type	Material	Thickness (mm)	Color	Epsilon R	Loss Tangent
F.Silkscreen	Top Silk Screen	Direct Printing	0 mm	White	1	0
F.Paste	Top Solder Paste		0 mm		1	0
F.Mask	Top Solder Mask	Liquid Ink	0.01524 mm	Black	3.3	0
Front	copper		0.07112 mm		1	0
Dielectric	prepreg	FR4	0.21082 mm	FR4 natural	4.1	0.02
In1.Cu	copper		0.01524 mm		1	0
Dielectric	core	FR4	1.0668 mm	FR4 natural	4.5	0.02
In2.Cu	copper		0.01524 mm		1	0
Dielectric	prepreg	FR4	0.21082 mm	FR4 natural	4.1	0.02
Back	copper		0.07112 mm		1	0
B.Mask	Bottom Solder Mask	Liquid Ink	0.01524 mm	Black	3.3	0
B.Paste	Bottom Solder Paste		0 mm		1	0
B.Silkscreen	Bottom Silk Screen	Direct Printing	0 mm	White	1	0

Fabrication Notes

This PCB was designed with JLCPCB manufacturing and assembly in mind.

Board Specs:

Core Material: FR-4
Layer Count: 4
Dimensions: 50mm x 100mm

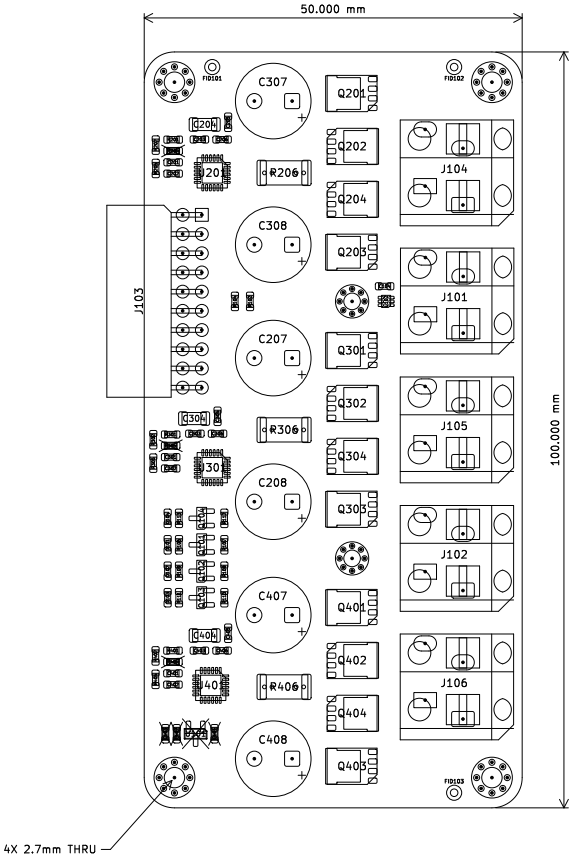
PCB Thickness: 1.6mm
Soldermask Color: Black
Silkscreen Color: White
Surface Finish: ENIG 1U"

Outer Copper Weight: 2.0 oz-in
Inner Copper Weight: 0.5 oz-in
Via Covering: Tented
Board Outline Tolerance: 0.2 mm

IPC Class 2 Standard Specifications

Minimum Trace Width: 8 mil
Minimum Trace Spacing: 8 mil
Minimum Via Size: 24/12 mil

Please note that when uploading the pick and place position file to JLCPCB, the orientations are not always correctly identified. You may need to manually adjust the orientation of each component before submitting the order.



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KiCad E.D.A. 9.0.5		Id: 11/11