

EncoGo Fabrication Document

Layer Stack Legend

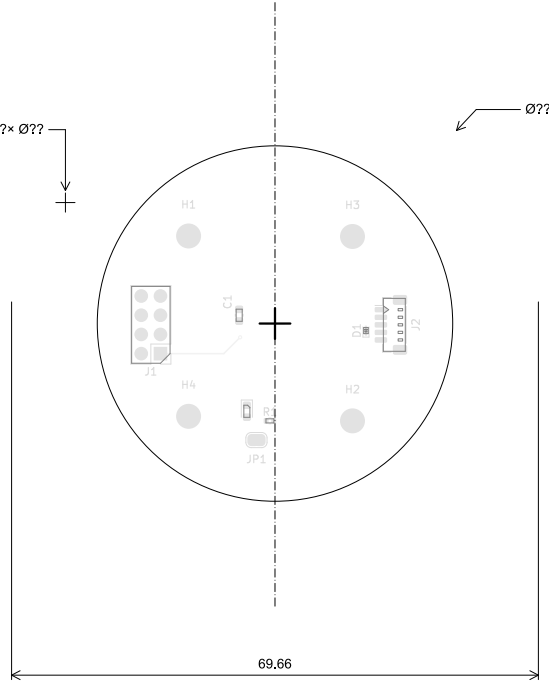
	Material	Layer	Thickness	Dielectric	Type	Gerber
	F,Paste				Paste Mask	
	F,Silkscreen				Legend	GBR
	F,Mask		0,02mm	Solder Resist	Solder Mask	GBR
	Copper	L1 (Sig, PWR)	0,07mm (2,00oz)		Signal	GBR
	Prepreg		0,1mm	FR4_7628	Dielectric	
	Copper	L2 (GND)	0,035mm (1,00oz)		Plane	GBR
	Core		1,21mm	FR4	Dielectric	
	Copper	L3 (Sig, PWR)	0,035mm (1,00oz)		Signal	GBR
	Prepreg		0,1mm	FR4_7628	Dielectric	
	Copper	L6 (Sig, PWR)	0,07mm (2,00oz)		Signal	GBR
	B,Mask		0,02mm	Solder Resist	Solder Mask	GBR
	B,Silkscreen				Legend	GBR
	B,Paste				Paste Mask	

Total thickness: 1,66mm  
Note: external layer thicknesses are specified after plating

Impedance Table

Transmission Line	Impedance [ohms]	Tolerance [ohms]	Layer	Trace Width [mm]	Gap [mm]	Ref. Layers
Edge-Coupled Coated Microstrip	100	±10 %	L1	0,2032	0,28	L2

Top Fabrication (Scale 1:1)



FABRICATION NOTES (UNLESS OTHERWISE SPECIFIED)

- 1) FABRICATE PER IPC-6012A CLASS 2.
- 2) OUTLINE DEFINED IN SEPARATE GERBER FILE WITH "Edge\_Cuts.GBR" SUFFIX.  
  
DIMENSIONS OF CIRCUMSIZED RECTANGLE SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- 3) SEE SEPARATE DRILL FILES WITH ".DRL" SUFFIX FOR HOLE LOCATIONS.  
  
SELECTED HOLE LOCATIONS SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- 4) SURFACE FINISH: IMMERSION GOLD
- 5) SOLDERMASK ON BOTH SIDES OF THE BOARD SHALL BE LPI, COLOR BLUE.
- 6) SILK SCREEN LEGEND TO BE APPLIED PER LAYER STACKUP USING YELLOW NON-CONDUCTIVE EPOXY INK.
- 7) ALL VIAS ARE TENTED ON BOTH SIDES UNLESS SOLDERMASK OPENED IN GERBER.
- 8) VENDOR SHOULD FOLLOW ROHS COMPLIANT PROCESS AND Pb FREE FOR MANUFACTURING
- 9) PCB MATERIAL REQUIREMENTS:

A. FLAMMABILITY RATING MUST MEET OR EXCEED UL94V-0 REQUIREMENTS.

B. Tg 170 C OR EQUIVALENT.

C. EQUIVALENT MATERIAL SHALL BE RoHS COMPLIANT, HALOGEN FREE AND APPROVED BY EVERYFLAVORROBOTICS.
- 10) DESIGN GEOMETRY MINIMUM FEATURE SIZES:

BOARD SIZE47.003 × 47.003 mm

BOARD THICKNESS1.660 mm

TRACE WIDTH0.200 mm

TRACE TO TRACE0.200 mm

MIN. HOLE (PTH)0.250 mm

MIN. HOLE (NPTH)3.200 mm

ANNULAR RING0.150 mm

COPPER TO HOLE0.254 mm

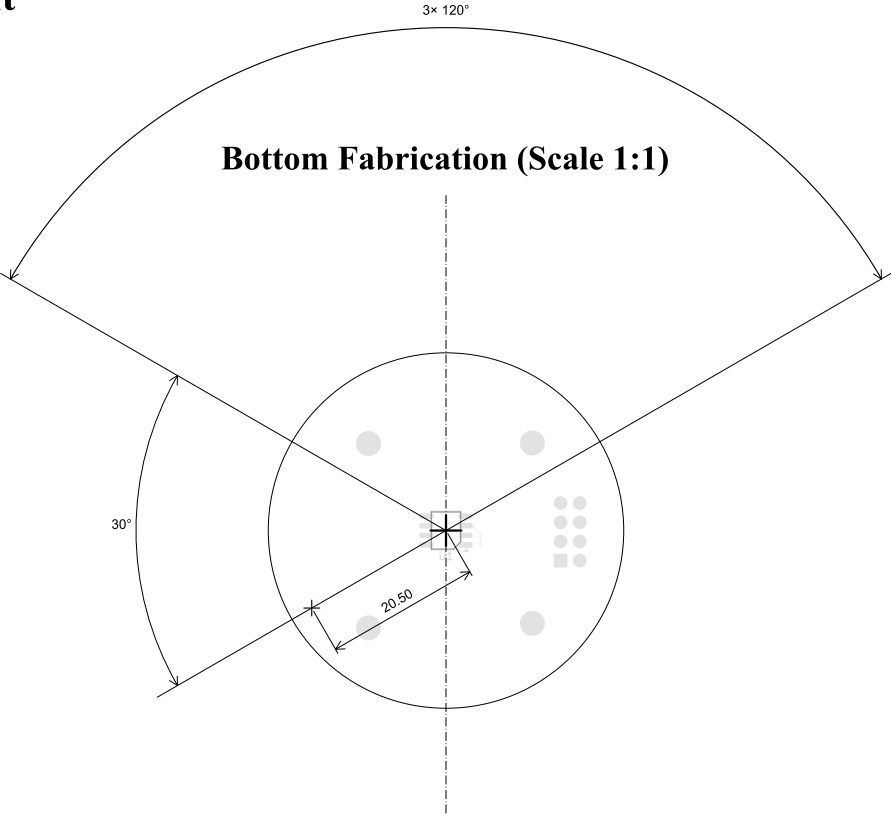
COPPER TO EDGE0.250 mm

HOLE TO HOLE0.254 mm
- 11) REFER TO IMPEDANCE TABLE FOR IMPEDANCE CONTROL REQUIREMENTS.
- 12) CONFIRM SPACE WIDTHS AND SPACINGS.

All dimensions are in millimeters unless otherwise specified.

	Comments:	Company: EveryFlavorRobotics		Variant: PRELIMINARY	Git Hash: b507100
		Board Name: EncoGo		Project Name: CICD-Test	
	Sheet Title: Top Fabrication (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
	Sheet Path:		Reviewer:	Size: A4	Sheet: 1 of 10

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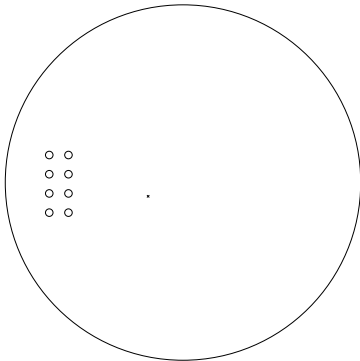
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		Board Name: EncoGo		Project Name: CICD-Test	
	Sheet Title: Bottom Fabrication (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
	Sheet Path:		Reviewer:	Size: A4	Sheet: 2 of 10

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Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
X	1	0,25mm (9,84mils)	PTH	Round	L1 (Sig, PWR) - L6 (Sig, PWR)	Via
O	8	1,00mm (39,37mils)	PTH	Round	L1 (Sig, PWR) - L6 (Sig, PWR)	Pad
	Total 9					

Drill Drawing L1 - L4 (Scale 1:1)



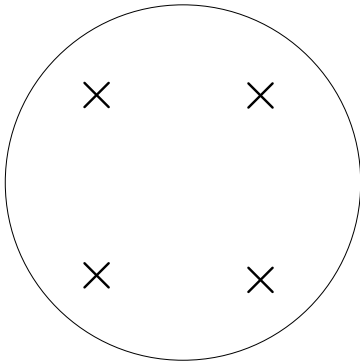
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	Sheet Path:		Reviewer:	Size: A4	Sheet: 3 of 10

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Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
X	4	3.20mm (125,98mils)	NPTH	Round	L1 (Sig. PWR) - L6 (Sig. PWR)	Mechanical
	Total 4					

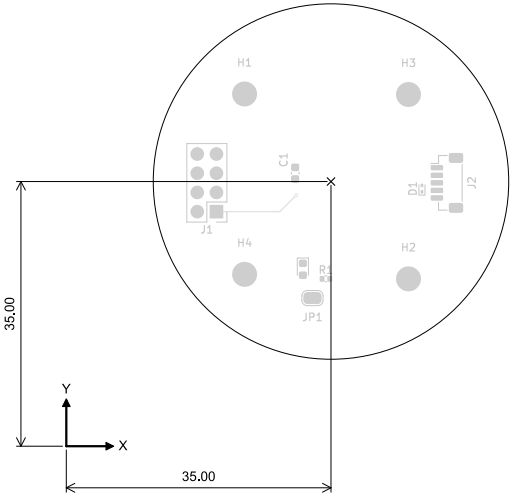
Drill Drawing L1 - L4 (Scale 1:1)



	Comments:	Company: EveryFlavorRobotics		Variant: PRELIMINARY	Git Hash: b507100
		Board Name: EncoGo		Project Name: CICD-Test	
	Sheet Title: Drill Drawing (L1 - L4)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
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Top Test Points (Scale 1:1)



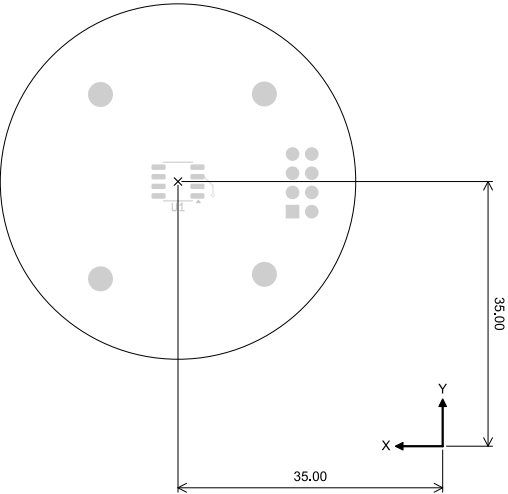
All dimensions are in millimeters unless otherwise specified.

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	Sheet Path:		Reviewer:	Size: A4	Sheet: 5 of 10

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Bottom Test Points (Scale 1:1)

Ref.	Net	X [mm]	Y [mm]
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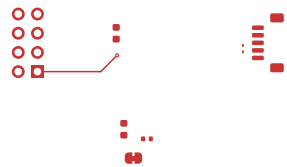


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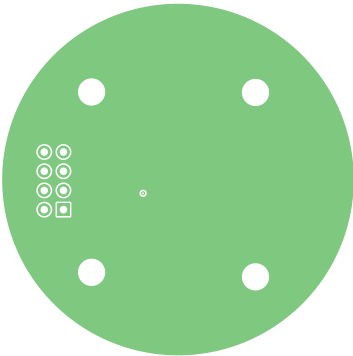
L1 (Sig, PWR) (Scale 1:1)



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	Sheet Title: L1 (Sig, PWR) (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
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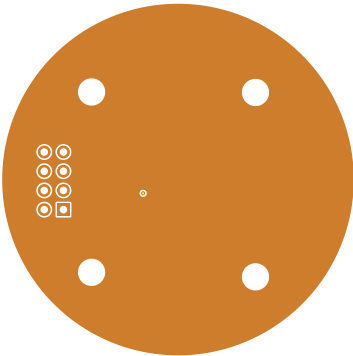
L2 (GND) (Scale 1:1)



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		Board Name: EncoGo		Project Name: CICD-Test	
	Sheet Title: L2 (GND) (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
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L3 (Sig, PWR) (Scale 1:1)



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		Board Name: EncoGo		Project Name: CICD-Test	
	Sheet Title: L3 (Sig, PWR) (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
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L6 (Sig, PWR) (Scale 1:1)



	Comments:	Company: EveryFlavorRobotics		Variant: PRELIMINARY	Git Hash: b507100
		Board Name: EncoGo		Project Name: CICD-Test	
	Sheet Title: L6 (Sig, PWR) (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
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