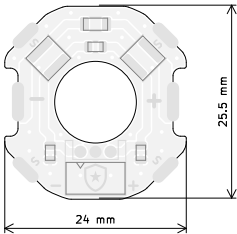


Top Fabrication (Scale 1:1)

Layer Stack Legend

	Material	Layer	Thickness	Dielectric	Type	Gerber
		F,Paste			Paste Mask	
		F,Silkscreen			Legend	GBR
		F,Mask	0,01mm		Solder Mask	GBR
	Copper	F,Cu	0,035mm (1oz)		Signal	GBR
	Core		1,51mm	FR4	Dielectric	
	Copper	B,Cu	0,035mm (1oz)		Signal	GBR
		B,Mask	0,01mm		Solder Mask	GBR
		B,Silkscreen			Legend	GBR
		B,Paste			Paste Mask	

Total thickness: 1,6mm  
Note: external layer thicknesses are specified after plating



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: HAL LEAD-FREE
- 5) SOLDERMASK ON BOTH SIDES OF THE BOARD SHALL BE LPI, COLOR BLACK.
- 6) SILK SCREEN LEGEND TO BE APPLIED PER LAYER STACKUP USING WHITE 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 TRENDBIT.
- 10) DESIGN GEOMETRY MINIMUM FEATURE SIZES:  
  
BOARD SIZE 24,000 x 25,515 mm  
BOARD THICKNESS 1,600 mm  
TRACE WIDTH 1,000 mm  
TRACE TO TRACE 0,200 mm  
MIN. HOLE (PTH) 0,500 mm  
MIN. HOLE (NPTH) N/A mm  
ANNULAR RING 0,250 mm  
COPPER TO HOLE 0,250 mm  
COPPER TO EDGE 0,250 mm  
HOLE TO HOLE 0,250 mm

All dimensions are in millimeters unless otherwise specified.

Designed for: TrendBit  
Designed by: Petr\_Malaník

Sheet:  
File: motor\_shield\_peristalttic.kicad\_pcb

**Project: SMPBR**

**Title:**

**Board: shield-peristalttic**

Size: A4

Date: 2024-12-04

GIT hash: 5b9075c

Rev: 1.0

KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5

Id: 1/7

1 2 3 4 5 6

A

B

C

D

### Bottom Fabrication (Scale 1:1)

20.5 mm

Motor filter shield  
29 mm

Peristaltic pump

1.75 mm

10.2 mm

9 mm

07/23  
v1.0

+ S -

Designed by:  
Petr Malanik

TREND  
BIT

All dimensions are in millimeters unless otherwise specified.

Designed for: TrendBit			
Designed by: Petr_Malanik			
Sheet: File: motor_shield_peristaltic.kicad_pcb			<b>Project: SMPBR</b>
<b>Title:</b>			<b>Board: shield-peristaltic</b>
Size: A4	Date: 2024-12-04	GIT hash: 5b9075c	Rev: 1.0
KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5			Id: 2/7

1 2 3 4 5 6

1 2 3 4 5 6

A

B

C

D

### Bottom Fabrication (Scale 1:1)

20.5 mm

Motor filter shield  
29 mm

Peristaltic pump

1.75 mm

10.2 mm

9 mm

07/23  
v1.0

+ S -

Designed by:  
Petr Malanik

TREND  
BIT

All dimensions are in millimeters unless otherwise specified.

Designed for: TrendBit			
Designed by: Petr_Malanik			
Sheet: File: motor_shield_peristaltic.kicad_pcb			<b>Project: SMPBR</b>
<b>Title:</b>			<b>Board: shield-peristaltic</b>
Size: A4	Date: 2024-12-04	GIT hash: 5b9075c	Rev: 1.0
KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5			Id: 2/7

1 2 3 4 5 6

**TREND  
BIT**

**Project: SMPBR**

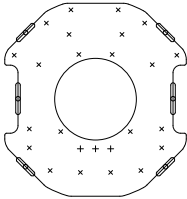
<b>Board:</b> shield-peristaltic
----------------------------------

Rev: 1.0
Id: 2/7

Drill Drawing L1 - L2 (Scale 1:1)

Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
X	22	0,50mm (19,69mils)	PTH	Round	F,Cu - B,Cu	Via
O	6	0,60mm (23,62mils)	PTH	Slot	F,Cu - B,Cu	Pad
+	3	0,80mm (31,50mils)	PTH	Round	F,Cu - B,Cu	Pad
	Total 31					



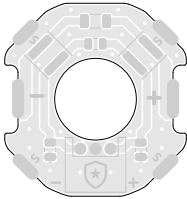
Designed for: TrendBit  
Designed by: Petr\_Malaník

Sheet:  
File: motor\_shield\_peristaltic.kicad\_pcb

**Project: SMPBR**  
**Board: shield-peristaltic**

**Title:**  
Size: A4 Date: 2024-12-04 GIT hash: 5b9075c Rev: 1.0  
KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5 Id: 3/7


Top Test Points (Scale 1:1)



Ref.	Net	X [mm]	Y [mm]
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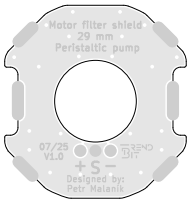
Ref.	Net	X [mm]	Y [mm]
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All dimensions are in millimeters unless otherwise specified.

<div>Designed for: TrendBit</div> <div>Designed by: Petr_Malaník</div> <div>Sheet:</div> <div>File: motor_shield_peristaltic.kicad_pcb</div> <div><b>Title:</b></div> <div>KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5</div>				<div></div> <div><b>Project: SMPBR</b></div> <div><b>Board: shield-peristaltic</b></div> <div><b>Rev: 1.0</b></div> <div>Id: 4/7</div>	
Size: A4		Date: 2024-12-04		GIT hash: 5b9075c	

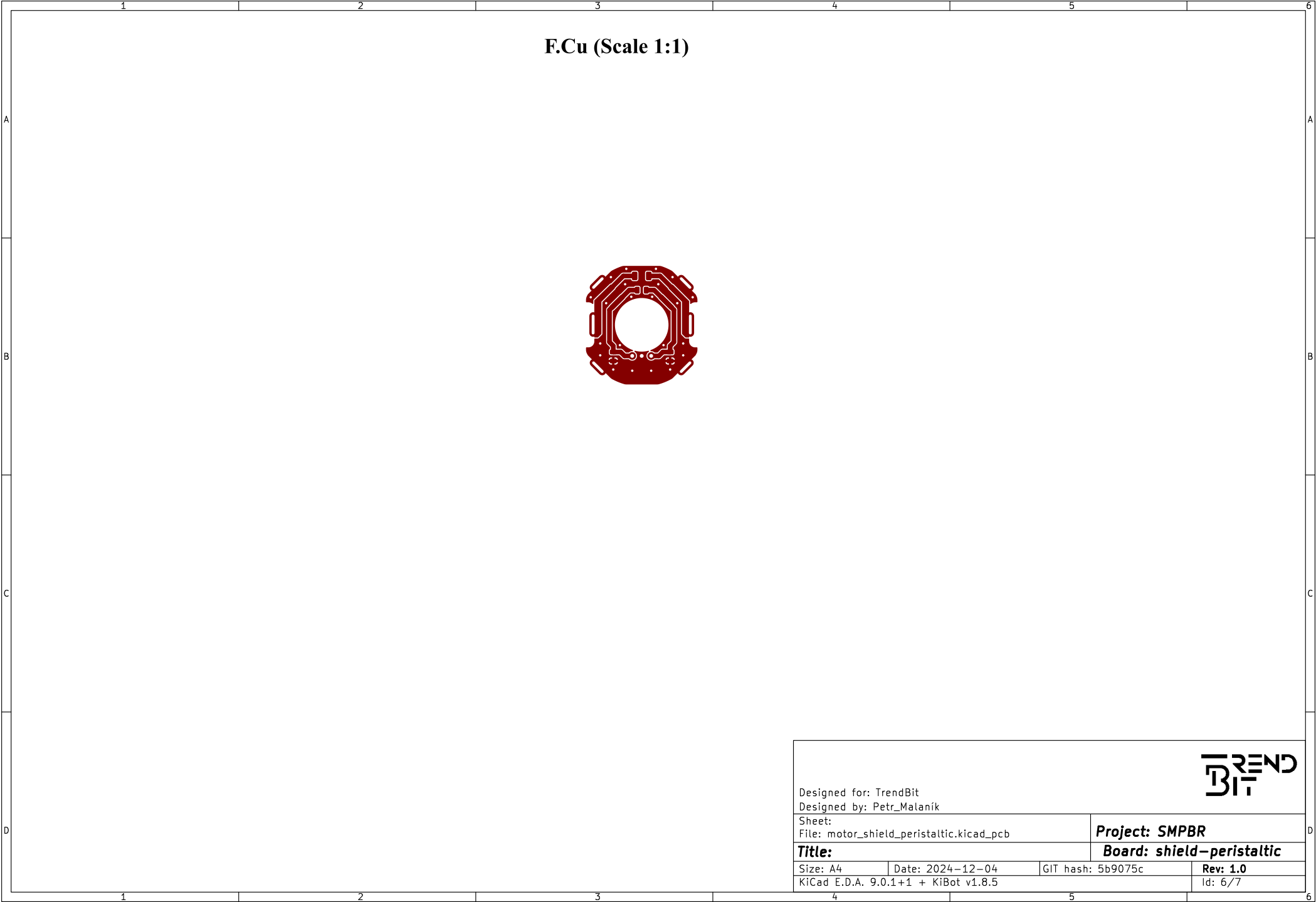
Bottom Test Points (Scale 1:1)


Ref.	Net	X [mm]	Y [mm]
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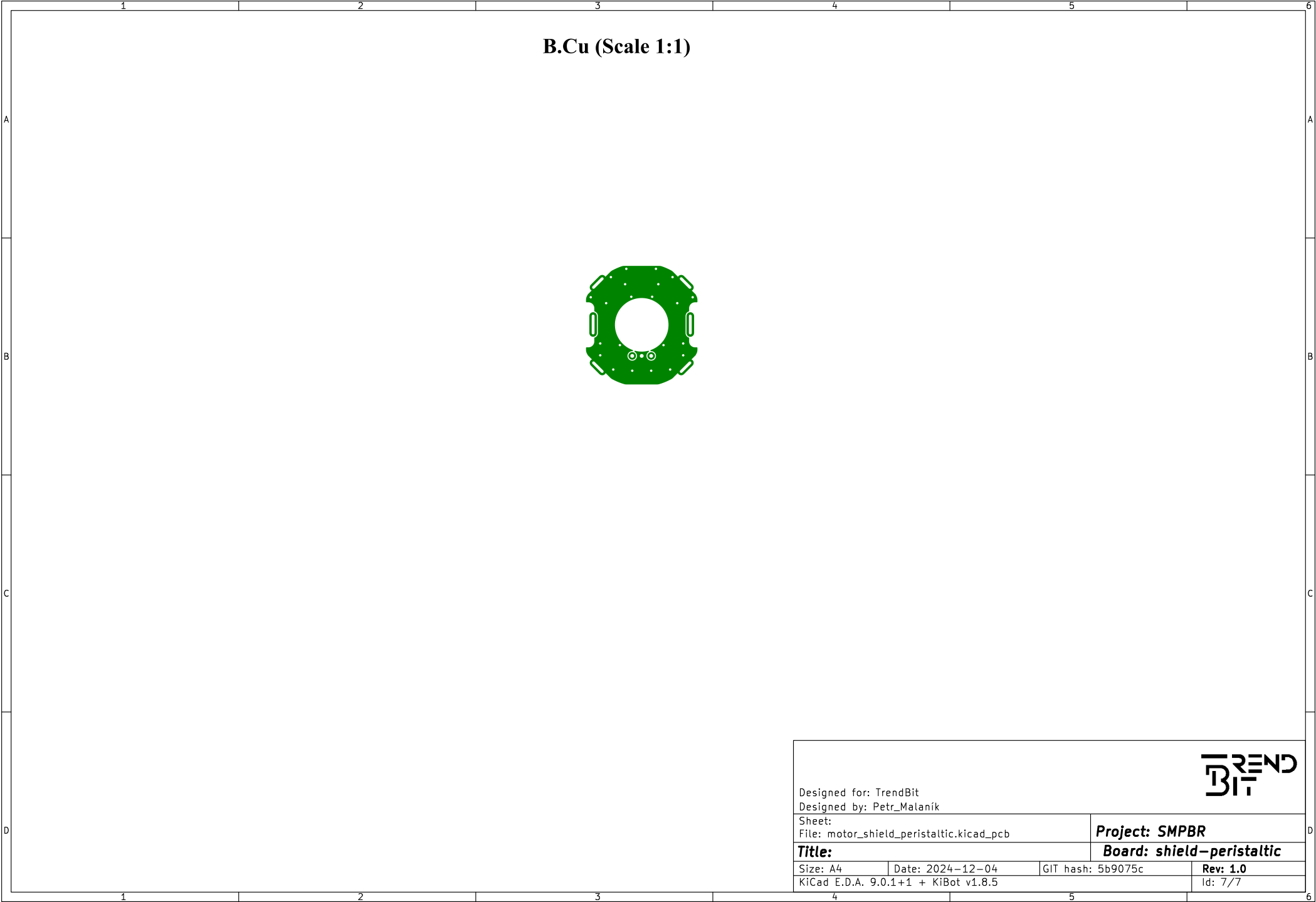


All dimensions are in millimeters unless otherwise specified.

<div>Designed for: TrendBit</div> <div>Designed by: Petr_Malanik</div>				<div>TREND BIT</div>	
Sheet: File: motor_shield_peristalttic.kicad_pcb			Project: SMPBR		
Title:			Board: shield-peristalttic		
Size: A4	Date: 2024-12-04	GIT hash: 5b9075c		Rev: 1.0	
KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5				Id: 5/7	



<div>Designed for: TrendBit</div> <div>Designed by: Petr_Malanik</div> <div>Sheet:</div> <div>File: motor_shield_peristaltic.kicad_pcb</div>				<div></div> <div><b>Project: SMPBR</b></div>	
<div><b>Title:</b></div>				<div><b>Board: shield-peristaltic</b></div>	
Size: A4	Date: 2024-12-04	GIT hash: 5b9075c		Rev: 1.0	
KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5				Id: 6/7	



Designed for: TrendBit  
Designed by: Petr\_Malaník

Sheet: File: motor_shield_peristaltic.kicad_pcb			<b>Project: SMPBR</b>	
<b>Title:</b>			<b>Board: shield-peristaltic</b>	
Size: A4	Date: 2024-12-04	GIT hash: 5b9075c		Rev: 1.0
KiCad E.D.A. 9.0.1+1 + KiBot v1.8.5				Id: 7/7