129.3 github.com /enph253-2025-team5/ robot-motherboard-pcb PIN STRAPPING:

GPI00 -> PULL-UP

GPI02 -> PULL-DOWN

MDTI(GPI012) -> PULL-DOWN

MDTO(GPI015) -> PULL-UP

GPI05 -> PULL-UP Designed by George Sleen

## **BOARD CHARACTERISTICS**

1.6000 mm Copper Layer Count: Board Thickness:

Board overall dimensions: 129.2860 mm  $\times$  78.7400 mm

Min track/spacing: 0.1000 mm / 0.1000 mm Min hole diameter: 0.3000 mm

Copper Finish: Impedance Control: No None Castellated pads: Plated Board Edge: No No

Edge card connectors: No

Layer Name	Туре	Material	Thickness (mm)	Color	Epsilon R	Loss Tangent
F.Silkscreen	Top Silk Screen	Not specified	0 mm	Not specified	1	0
F.Paste	Top Solder Paste		0 mm		1	0
F.Mask	Top Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
F.Cu	copper		0.035 mm		1	0
Dielectric	core	FR4	1.51 mm	Not specified	4.5	0.02
B.Cu	copper		0.035 mm		1	0
B.Mask	Bottom Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
B.Paste	Bottom Solder Paste		0 mm		1	0
B.Silkscreen	Bottom Silk Screen	Not specified	0 mm	Not specified	1	0

Title: Robot Motherboard	
File: robot-motherboard.kicad_pcb	D
Sheet:	
Team 5	
George Sleen	

litle: Kodot			
Size: A4	Date: 2025-07-04		Rev: v1.1.0
KiCad E.D.A. 9.0	2		ld: 1/4

129.3 82.4

## **BOARD CHARACTERISTICS**

Copper Layer Count: 2 Board Thickness: 1.6000 mm

Board overall dimensions: 129.2860 mm x 78.7400 mm

Min track/spacing: 0.1000 mm / 0.1000 mm Min hole diameter: 0.3000 mm

Copper Finish: None Impedance Control: No Castellated pads: No Plated Board Edge: No

Edge card connectors: No

Layer Name	Туре	Material	Thickness (mm)	Color	Epsilon R	Loss Tangent
F.Silkscreen	Top Silk Screen	Not specified	0 mm	Not specified	1	0
F.Paste	Top Solder Paste		0 mm		1	0
F.Mask	Top Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
F.Cu	copper		0.035 mm		1	0
Dielectric	core	FR4	1.51 mm	Not specified	4.5	0.02
B.Cu	copper		0.035 mm		1	0
B.Mask	Bottom Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
B.Paste	Bottom Solder Paste		0 mm		1	0
B.Silkscreen	Bottom Silk Screen	Not specified	0 mm	Not specified	1	0

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129.3 82.4 3V3 OUT GND WingO\_S 3V3 SDA SCL GND 12C0 470R 10K 4k7 4k7 4k7 VOUT+ ROBOT v1.1.0 MOTHERBOARD VOUT-User.Input G1 SSD1306\_OLED -INO -N1 C11 ----Extra ----GND 12 2 RX0 TX0 C3

## **BOARD CHARACTERISTICS**

Copper Layer Count: 2 Board Thickness: 1.6000 mm

Board overall dimensions: 129.2860 mm x 78.7400 mm

Min track/spacing: 0.1000 mm / 0.1000 mm Min hole diameter: 0.3000 mm

Copper Finish: None Impedance Control: No Castellated pads: No Plated Board Edge: No

Edge card connectors: No

Layer Name	Туре	Material	Thickness (mm)	Color	Epsilon R	Loss Tangent
F.Silkscreen	Top Silk Screen	Not specified	0 mm	Not specified	1	0
F.Paste	Top Solder Paste		0 mm		1	0
F.Mask	Top Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
F.Cu	copper		0.035 mm		1	0
Dielectric	core	FR4	1.51 mm	Not specified	4.5	0.02
B.Cu	copper		0.035 mm		1	0
B.Mask	Bottom Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
B.Paste	Bottom Solder Paste		0 mm		1	0
B.Silkscreen	Bottom Silk Screen	Not specified	0 mm	Not specified	1	0

George Sleen	
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litle: Kodot				
Size: A4	Date: 2025-07-04		Rev: v1.1.0	
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## **BOARD CHARACTERISTICS**

Copper Layer Count: 2 Board Thickness: 1.6000 mm

Board overall dimensions: 129.2860 mm  $\times$  78.7400 mm

Min track/spacing: 0.1000 mm / 0.1000 mm Min hole diameter: 0.3000 mm

Copper Finish: None Impedance Control: No Castellated pads: No Plated Board Edge: No

Edge card connectors: No

Layer Name	Туре	Material	Thickness (mm)	Color	Epsilon R	Loss Tangent
F.Silkscreen	Top Silk Screen	Not specified	0 mm	Not specified	1	0
F.Paste	Top Solder Paste		0 mm		1	0
F.Mask	Top Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
F.Cu	copper		0.035 mm		1	0
Dielectric	core	FR4	1.51 mm	Not specified	4.5	0.02
B.Cu	copper		0.035 mm		1	0
B.Mask	Bottom Solder Mask	Not specified	0.01 mm	Not specified	3.3	0
B.Paste	Bottom Solder Paste		0 mm		1	0
B.Silkscreen	Bottom Silk Screen	Not specified	0 mm	Not specified	1	0

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 Rev: v1.1.0

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