

M2M

J9
P1A 1
P1B 2
P1C 3
P1D 4

J10
P2A 1
P2B 2
P2C 3
P2D 4

J11
P3A 4
P3B 3
P3C 2
P3D 1

J18
Module
RXD1 8
TXD1 7
SPI0_TX 6
SPI0_SCK 5
SPI0_SC 4
SPI0_RX 3
Vmod O 2
1

J12
SDA0 1
SCL0 2
I2C0 3
+3V3 4

J14
SDA0 1
SCL0 2
I2C0 3
+3V3 4

J16
SDA0 1
SCL0 2
I2C0 3
+3V3 4

J13
SDA0 1
SCL0 2
I2C0 3
+3V3 4

J15
SDA0 1
SCL0 2
I2C0 3
+3V3 4

J17
SDA0 1
SCL0 2
I2C0 3
+3V3 4

The schematic diagram illustrates the pin connections for the RPI-PICO board. It features two main components: U1 (RPI-PICO) and J1 (Raspberry Pi).

U1 (RPI-PICO) Pin Connections:

- GPIO Pins (GP0-GP28):**
 - GP0 (TXD0) and GP1 (RXD0) are connected to pins 1 and 2, respectively.
 - GP2 (P1A) and GP3 (P1B) are connected to pins 3 and 4, respectively.
 - GP4 (SDA0) and GP5 (SCL0) are connected to pins 5 and 6, respectively.
 - GP6 (P1C) and GP7 (P1D) are connected to pins 7 and 8, respectively.
 - GP8 (TXD1) and GP9 (RXD1) are connected to pins 9 and 10, respectively.
 - GP10 (P2A) and GP11 (P2B) are connected to pins 11 and 12, respectively.
 - GP12 (P2C) and GP13 (P2D) are connected to pins 13 and 14, respectively.
 - GP14 (P3B) and GP15 (P3A) are connected to pins 15 and 16, respectively.
 - GP16 (P3B) and GP17 (P3A) are connected to pins 17 and 18, respectively.
 - GP18 (P3B) and GP19 (P3A) are connected to pins 19 and 20, respectively.
 - GP20 (P3B) and GP21 (P3A) are connected to pins 21 and 22, respectively.
 - GP22 (P3B) and GP23 (P3A) are connected to pins 23 and 24, respectively.
 - GP24 (P3B) and GP25 (P3A) are connected to pins 25 and 26, respectively.
 - GP26 (P3B) and GP27 (P3A) are connected to pins 27 and 28, respectively.
 - GP28 (P3B) and GP29 (P3A) are connected to pins 29 and 30, respectively.
 - GP30 (P3B) and GP31 (P3A) are connected to pins 31 and 32, respectively.
 - GP32 (P3B) and GP33 (P3A) are connected to pins 33 and 34, respectively.
 - GP34 (P3B) and GP35 (P3A) are connected to pins 35 and 36, respectively.
 - GP36 (P3B) and GP37 (P3A) are connected to pins 37 and 38, respectively.
 - GP38 (P3B) and GP39 (P3A) are connected to pins 39 and 40, respectively.
- Power and Ground Pins:**
 - VBUS (pin 40) is connected to +5V.
 - VSYS (pin 39) is connected to +3V3.
 - GND (pin 38) is connected to ground.
 - 3V3_EN (pin 37) is connected to +3V3.
 - 3V3 (pin 36) is connected to +3V3.
 - ADC_VREF (pin 35) is connected to +3V3.
 - GND (pin 34) is connected to ground.
 - GND (pin 33) is connected to ground.
 - GND (pin 32) is connected to ground.
 - GND (pin 31) is connected to ground.
 - GND (pin 30) is connected to ground.
 - GND (pin 29) is connected to ground.
 - GND (pin 28) is connected to ground.
 - GND (pin 27) is connected to ground.
 - GND (pin 26) is connected to ground.
 - GND (pin 25) is connected to ground.
 - GND (pin 24) is connected to ground.
 - GND (pin 23) is connected to ground.
 - GND (pin 22) is connected to ground.
 - GND (pin 21) is connected to ground.
 - GND (pin 20) is connected to ground.
 - GND (pin 19) is connected to ground.
 - GND (pin 18) is connected to ground.
 - GND (pin 17) is connected to ground.
 - GND (pin 16) is connected to ground.
 - GND (pin 15) is connected to ground.
 - GND (pin 14) is connected to ground.
 - GND (pin 13) is connected to ground.
 - GND (pin 12) is connected to ground.
 - GND (pin 11) is connected to ground.
 - GND (pin 10) is connected to ground.
 - GND (pin 9) is connected to ground.
 - GND (pin 8) is connected to ground.
 - GND (pin 7) is connected to ground.
 - GND (pin 6) is connected to ground.
 - GND (pin 5) is connected to ground.
 - GND (pin 4) is connected to ground.
 - GND (pin 3) is connected to ground.
 - GND (pin 2) is connected to ground.
 - GND (pin 1) is connected to ground.

J1 (Raspberry Pi) Pin Connections:

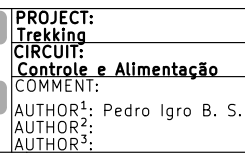
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 - GP0 (TXD0) and GP1 (RXD0) are connected to pins 1 and 2, respectively.
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 - GP6 (P1C) and GP7 (P1D) are connected to pins 7 and 8, respectively.
 - GP8 (TXD1) and GP9 (RXD1) are connected to pins 9 and 10, respectively.
 - GP10 (P2A) and GP11 (P2B) are connected to pins 11 and 12, respectively.
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- Power and Ground Pins:**
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 - VSYS (pin 39) is connected to +3V3.
 - GND (pin 38) is connected to ground.
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 - 3V3 (pin 36) is connected to +3V3.
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 - GND (pin 8) is connected to ground.
 - GND (pin 7) is connected to ground.
 - GND (pin 6) is connected to ground.
 - GND (pin 5) is connected to ground.
 - GND (pin 4) is connected to ground.
 - GND (pin 3) is connected to ground.
 - GND (pin 2) is connected to ground.
 - GND (pin 1) is connected to ground.

The schematic diagram illustrates the power supply and signal conditioning circuit for the ADXL345 module. It is divided into three main sections: Power Supply, Signal Conditioning, and I2C Interface.

Power Supply: The circuit starts with a 3.3V regulator (U2, AMS1117-3.3) powered by V1 and V2. Its output (V0) is connected to the VCC pin of the ADXL345 (J1). A 100nF capacitor (C1) is connected to the input, and a 100nF capacitor (C6) is connected to the output. The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1). The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1). The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1).

Signal Conditioning: The ADXL345 module (U3, MIC29302WU) is powered by V1 and V2. Its output (V0) is connected to the VCC pin of the ADXL345 (J1). A 100nF capacitor (C1) is connected to the input, and a 100nF capacitor (C6) is connected to the output. The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1). The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1). The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1).

I2C Interface: The ADXL345 module (U3, MIC29302WU) is powered by V1 and V2. Its output (V0) is connected to the VCC pin of the ADXL345 (J1). A 100nF capacitor (C1) is connected to the input, and a 100nF capacitor (C6) is connected to the output. The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1). The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1). The 3.3V regulator is also connected to the VCC pin of the ADXL345 (J1).



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