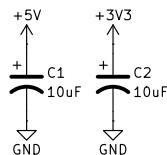
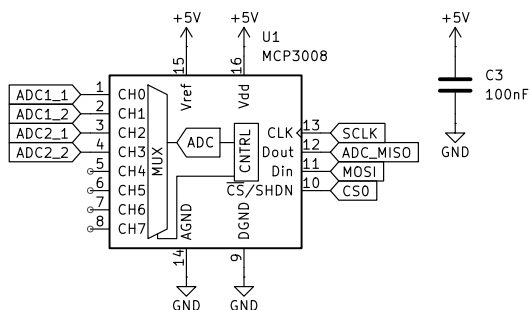


Connector for Edgeberry's expansion slot



Through the MCP3008 Analog/Digital converter, the Raspberry Pi is equipped with analog inputs via SPI



Digital 1
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO12 2 3 D1_1
Q14 BS170
R27 10k R28 10k

Digital 2
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO21 2 3 D2_1
Q13 BS170
R25 10k R26 10k

Digital 3
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO13 2 3 D3_1
Q9 BS170
R17 10k R18 10k

Digital 4
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO25 2 3 D4_1
Q10 BS170
R19 10k R20 10k

Digital 5
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO20 2 3 D1_2
Q11 BS170
R21 10k R22 10k

Digital 6
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO16 2 3 D2_2
Q12 BS170
R23 10k R24 10k

Digital 7
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO24 2 3 D3_2
Q7 BS170
R13 10k R14 10k

Digital 8
Bi-directional levelshifter
+3V3 +3V3 +5V
GPIO22 2 3 D4_2
Q8 BS170
R15 10k R16 10k

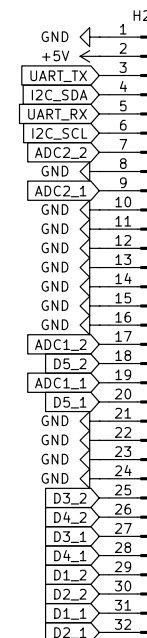
UART
Bi-directional levelshifter
+3V3 +3V3 +5V
RX 2 3 UART_RX
Q1 BS170
R1 10k R2 10k

I2C
Bi-directional levelshifter
+3V3 +3V3 +5V
SCL 2 3 I2C_SCL
Q3 BS170
R5 10k R6 10k

SPI
Bi-directional levelshifter
+3V3 +3V3 +5V
MISO 2 3 ADC_MISC
Q15 BS170
R29 10k R30 10k

* The ADC operates at a 5V logic level. However, only the signals to the controller require to be level shifted. The controller's 3V3 for logic high exceeds the minimum threshold for logic high.

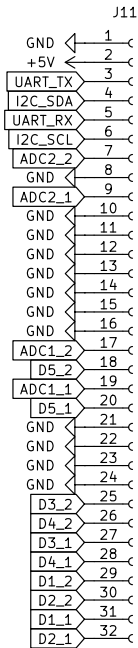
Connection to the PCB on the back of the Cartridge, holding the connectors



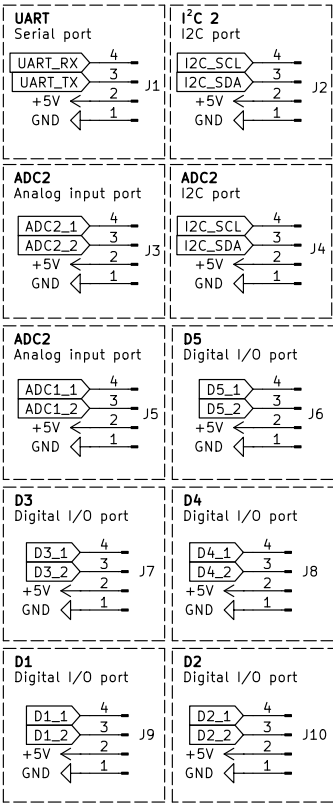
Rev:
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Board-to-board

Connection to main PCB



Peripherals ports



EDGEBERRY CARTRIDGE

Edge Explorer Rev. 1.1, early 2025

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Sheet: /
File: Edgeberry_Explorer_Cartridge_Top.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 8.0.9

Rev:

Id: 2/1