

SparkFun Artemis Development Kit (DEV-16828)

Qwiic Cable

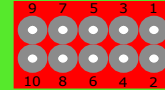
BLK: GND BLU: SDA
RED: 3.3V YLW: SCL

Interface JTAG

- VCC 3.3V
- SWDIO/TMS
- GND
- SWDCLK/TCK
- GND
- SWO/TDO
- NC
- NC/TDI
- GND

Target JTAG

- VCC 3.3V
- SWDIO
- GND
- SWDCLK
- GND
- NC
- NC
- NC
- GND



Pin Number (Camera Connector)	Connection Name	Pad Number (Artemis Module)
22	GND	GND
21	D1	D1
20	AVDD	3.3V
19	D3	D3
18	D3	D3
17	FVLD	D15
16	VSYNC	D15
15	HSYNC	D17
14	D0	D0
13	D0	D0
12	D4	D4
11	D4	D4
10	IOVDD	1.8V
9	D2	D2
8	D2	D2
7	MCLK	D18
6	TRIG	D14
5	D7	D7
4	D7	D7
3	D7	D7
2	D7	D7
1	D7	D7
0	D7	D7
-1	D7	D7
-2	D7	D7
-3	D7	D7
-4	D7	D7
-5	D7	D7
-6	D7	D7
-7	D7	D7
-8	D7	D7
-9	D7	D7
-10	D7	D7
-11	D7	D7
-12	D7	D7
-13	D7	D7
-14	D7	D7
-15	D7	D7
-16	D7	D7
-17	D7	D7
-18	D7	D7
-19	D7	D7
-20	D7	D7
-21	D7	D7
-22	D7	D7

Interface Chip

Kinetis KL26 Arm® Cortex®-M0+ MCU

- Clock Frequency: 48MHz
- Flash: 128kB
- SRAM: 16kB
- Firmware: Arm Mbed™ DAPLink
 - Composite USB Enumeration
 - Drag-and-Drop Programming

USB-C (UART)

TGT_RX D48 D48
TGT_TX D49 D49

Qwiic (I2C) Connector

IOM1: SCL (D8) + SDA (D9)
JST-SH (4-pin)

Accelerometer:

LIS2DH12 3-Axis Accelerometer
I2C Address: 0x19
I2C Bus: IOM1

Microphone:

SPH0641LM4H-1 Microphone (PDM)
CLK: AD12
DATA: AD11

LEDs

Power: Red
COM: Yellow
HID: Green
MSD: Blue
Status (D23): Blue



Camera Connector: 24-Pin FPC
I2C Bus: IOM1



Artemis Module

Apollo3 Arm® Cortex®-M4F MCU

- Memory: 1M Flash / 384k RAM
- Clock Frequency: 48/96MHz (turbo)
- 14-bit ADC
- 16-bit PWM Control

 BLE 5.0 with FCC Certification

IOM2: SCL/SCK	TX0	D28 ~	D28
IOM2: SDA/SDI	RX1	D25 ~	D25
IOM2: SDO	TX0	D26 ~	D26
A34	RX0	D34	AD34
A29	RX0	D29 ~	AD29
A32		D32 ~	AD32
A33		D33 ~	AD33
AD13	RX1	D13 ~	AD13
	RX0	D27 ~	D27
	RX0	D23 ~	D23
A35	TX1	D35 ~	AD35
		D24 ~	D24

D39	D39 ~	TX0/TX1	IOM4: SCL/SCK
D40	D40	RX0/RX1	IOM4: SDA/SDI
D44	D44 ~	TX0	IOM4: SDO
D37	D37 ~	TX1	
D38	D38	RX1	IOM3: SDO
D36	D36	RX1	
D42	D42 ~	TX1	IOM3: SCL/SCK
D43	D43 ~	RX1	IOM3: SDA/SDI
D45	D45 ~	RX0	
D41	D41	TX0	
AD31	D31 ~	RX0	A31
AD16	D16	TX0	A16

Power

VCC: 3.3V @ 600mA (max.)
Each pin is 3.3V tolerant and can source or sink no more than 50mA

Arduino Peripheral Defaults:

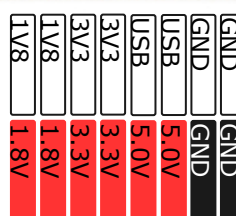
Serial: UART0

RX: D49 (TGT_RX)
TX: D48 (TGT_TX)

SPI: IOM4 I2C: IOM1

SCK: D39 SCL: D8
SDI: D40 SDA: D9
SDO: D44

Reset Button



Pad Power GND Arduino UART ADC IOM

~ Indicates PWM Capability

