YSOFT IOTA™

IOTA PLAY BOARD 1.1.0 PIN MAPPING

CONTENT

1 ARDUINO CONNECTORS

Green - 3.3V (5V tolerant)	**Red** - 3.3 V only	**Yellow** - Shared pins with onboard peripherals - take caution when sharing those pins with something else

Pin Label	Arduino pin number	Arduino Zero	IOTA Play
IO0	0	0 -> RX	0 -> RX
IO1	1	1 <- TX	1 <- TX
IO2	2	2	2 (RADIO RESET after soldering R57)
IO3	3	~3	RADIO INTERRUPT
IO4	4	~4	~4
IO5	5	~5	ACCELEROMETER INTERRUPT
IO6	6	~6	~6
IO7	7	7	7
IO8	8	~8	RADIO NSS
IO9	9	~9	~9
IO10	10	~10	~10 (SPI1 SS)
IO11	11	~11	~11 (SPI1 MOSI)
IO12	12	~12	~12 (SPI1 MISO)
IO13	13	~13 / LED	~13 (SPI1 SCK)
GND	-	GND	GND
AREF	42	AREF	AREF
SDA	20	SDA	SDA
SCL	21	SCL	SCL

Pin label	Arduino pin number	Arduino Zero	IOTA Play
AD5	14	A5	BATTERY VOLTAGE SENSE
AD4	15	A4	A4

Pin label	Arduino pin number	Arduino Zero	IOTA Play
AD3	16	A3	A3
AD2	17	A2	A2
AD1	18	A1	A1
AD0	19	A0	A0
Vin	-	Vin (6-20V)	Vin (5-14V)
GND	-	GND	GND
GND	-	GND	GND
5V0	-	5V0	5V0 (300mA)
3V3	-	3V3 (800mA)	3.3V (200mA)
RESET	-	RESET	RESET
IOREF	-	IOREF - 3.3V	IOREF - Switchable 3.3V
ATTN	(7)		(7)

2 SPI CONNECTOR

Green - 3.3V (5V tolerant)	**Red** - 3.3 V only	**Yellow** - Shared pins with onboard peripherals - take caution when sharing those pins with something else

Connector pin	Arduino pin number	Arduino Zero function	IOTA Play
1	22	MISO	RADIO MISO
2	-	5V0	5V0
3	23	MOSI	RADIO MOSI
4	24	SCK	RADIO SCK
5	-	RESET	RESET
6	-	GND	GND

3 IOTA PLAY SPECIFIC

Green - 3.3V (5V tolerant)	**Red** - 3.3 V only	**Yellow** - Shared pins with onboard peripherals - take caution when sharing those pins with something else

Arduino pin number	Function
25	LED2
26	LED1
30	BUTTON SW3
31	BUTTON SW5
38	SUBSYSTEM POWER ENABLE

4 COMPLETE PIN MAPPING

Pin number	Arduino Zero Board Pin	CPU PIN	IOTA Play pin function		
	Digital Low pins		**Pin function (yellow - shared with onboard peripherals)**	**Power domain**	**Notes**
0	0 -> RX	PA11	0 -> RX	3.3V (5V tolerant)	
1	1 <- TX	PA10	1 <- TX	3.3V (5V tolerant)	
2	2	PA14	2 (RADIO RESET after soldering R57)	3.3V (5V tolerant)	To be able to use this pin as RADIO RESET solder R57
3	~3	PA09	RADIO INTERRUPT	3.3V (5V tolerant)	To be able to use this pin as I/O desolder R59
4	~4	PA08	~4	3.3V (5V tolerant)	
5	~5	PA15	ACCELEROMETER INTERRUPT	3.3V (5V tolerant)	To be able to use this pin as I/O desolder R45, R42
6	~6	PA20	~6	3.3V (5V tolerant)	

Pin number	Arduino Zero Board Pin	CPU PIN	IOTA Play pin function		
7	7	PA21	7	3.3V (5V tolerant)	
	Digital High Pins				
8	~8	PA06	RADIO_NSS	3.3V (5V tolerant)	To be able to use this pin as I/O desolder R58
9	~9	PA07	~9	3.3V (5V tolerant)	
10	~10	PA18	~10 (SPI1 SS)	3.3V (5V tolerant)	
11	~11	PA16	~11 (SPI1 MOSI)	3.3V (5V tolerant)	
12	~12	PA19	~12 (SPI1 MISO)	3.3V (5V tolerant)	
13	~13 / LED	PA17	~13 (SPI1 SCK)	3.3V (5V tolerant)	
	Analog Connector				
14	A0	PA02	A0	3.3V only	

Pin number	Arduino Zero Board Pin	CPU PIN	IOTA Play pin function		
15	A1	PB08	A1	3.3V only	Beware of using with some Arduino 5V shields Connecting higher analog voltage than 3.3V will damage the CPU
16	A2	PB09	A2	3.3V only	
17	A3	PA04	A3	3.3V only	
18	A4	PA05	A4	3.3V only	
19	A5	PB02	BATTERY VOLTAGE SENSE	3.3V only	
	I2C				
20	SDA	PA22	SDA	3.3V (5V tolerant)	Occupied I2C addresses: Temp/Humidity: 0x40 Crypto: 0x60 Accelerometer: 0x28
21	SCL	PA23	SCL	3.3V (5V tolerant)	
	SPI (Legacy ICSP)				
22	1 / MISO	PA12	RADIO_MISO	3.3V only	To be able to use this pin as I/O desolder R61. Can be shared with other SPI peripherals using different CS.
	2 / 5V0				
23	3 / MOSI	PB10	RADIO_MOSI	3.3V only	To be able to use this pin as I/O desolder R60. Can be shared with other SPI peripherals using different CS.
24	4 / SCK	PB11	RADIO_SCK	3.3V only	To be able to use this pin as I/O desolder R62. Can be shared with other SPI peripherals using different CS.
	5 / RESET				

Pin number	Arduino Zero Board Pin	CPU PIN	IOTA Play pin function		
	6 / GND				
	LEDs				
25		PB03	LED2	3.3V only	
26		PA27	LED1	3.3V only	
	USB				
27	USB_HOST_ENABLE	PA28	USB_HOST_ENABLE	3.3V only	
28	USB_NEGATIVE	PA24	USB_NEGATIVE	3.3V only	
29	USB_POSITIVE	PA25	USB_POSITIVE	3.3V only	
	Other				
30	EDBG_UART TX	PB22	BUTTON SW3	3.3V only	
31	EDBG_UART RX	PB23	BUTTON SW5	3.3V only	
32	EDBG_SDA	PA22	PIN 20	N/A	
33	EDBG_SCL	PA23	PIN 21	N/A	
34	EDBG_MISO	PA19	PIN 12	N/A	
35	EDBG_MOSI	PA16	PIN 11	N/A	
36	EDBG_SS	PA18	PIN 10	N/A	
37	EDBG_SCK	PA17	PIN 13	N/A	

Pin number	Arduino Zero Board Pin	CPU PIN	IOTA Play pin function		
38	EDBG_GPIO0	PA13	SUBSYSTEM POWER ENABLE	3.3V only	
39	EDBG_GPIO1	PA21	PIN 7	N/A	
40	EDBG_GPIO2	PA06	PIN 8	N/A	
41	EDBG_GPIO3	PA07	PIN 9	N/A	
42	AREF	PA02	AREF	3.3V only	
43	DAC output A0	PA02	DAC output A0	3.3V only	