Input and Output

Each of the 14 digital i/o pins on the M0 can be used as an input or output, using pinMode(), digitalWrite(), and digitalRead() functions. They operate at 3.3 volts. 7mA as maximum DC current for I/O pins and an internal pull-up resistor (disconnected by default) of 20-60 kOhms. In addition, some pins have specialized functions:

- Serial: 0 (RX) and 1 (TX). Used to receive (RX) and transmit (TX) TTL serial data using the ATSAMD21G18 hardware serial capability. Note that on the M0, the SerialUSB class refers to USB (CDC) communication; for serial on pins 0 and 1, use the Serial5 class.
- TWI: SDA and SCL. Support TWI communication using the Wire library.
- PWM: Pins 2 to 13 Provide 8-bit PWM output with the analogWrite() function. The resolution of the PWM can be changed with the analogWriteResolution() function. Note1 The pins 4 and 10 can not be used simultaneously as PWM. Note2 The pins 5 and 12 can not be used simultaneously as PWM.
- SPI: on the ICSP header. These pins support SPI communication using the SPI library. Note that the SPI pins are not connected to any of the digital I/O pins as they are on the Uno, They are only available on the ICSP connector. This means that if you have a shield that uses SPI, but does NOT have a 6-pin ICSP connector that connects to the M0's 6-pin ICSP header, the shield will not work.
- LED: 13. There is a built-in LED connected to digital pin 13. When the pin is HIGH value, the LED is on, when the pin is LOW, it's off.
- Analog Inputs: A0-A5. The M0 has 6 analog inputs, labeled A0 through A5. Pins A0-A5 appear in the same locations as on the Uno; Each analog input provides 12 bits of resolution (i.e. 4096 different values). By default the analog inputs measure from ground to 3.3 volts, though is it possible to change the upper end of their range using the AREF pin and the analogReference() function.
- DAC: pin A0 provides true analog outputs with 10-bits resolution (1023 levels) with the analogWrite() function. This pin can be used to create an audio output using the Audio library.
- Reset: Bring this line LOW to reset the microcontroller. This is typically used to add a reset button when shields are used that block the one already present on the board.

							3.3V
							RESET
							3.3V
							5V
							GND
							GND
							VIN
		DAC	PTC:Y0	EXTINT2	AIN0	PA02	A0
	PTC:Y14	TC4:0	SER4:0	EXTINT8	AIN2	PB08	A1
	PTC:Y15	TC4:1	SER4:1	EXTINT9	AIN3	PB09	A2
PTC:Y2	TCC0:0	SER0:0	EXTINT4	AIN4	PA04	A3	REFB
	PTC:Y3	TCC0:1	SER0:1	EXTIN5	AIN5	PA05	A4
	PTC:Y8	TC6:0	SER5:0	EXTINT2	AIN10	PB02	A5

D21	PA23	EXTINT7	SCL	SER3:1/5:1*	TC4:1/TCC0:5	USB/SOF 1KhZ	
D20	PA22	EXTINT6	SDA	SER3:0/5:0*	TC4:0/TCC0:4	PCT:X10	
REFA	PA03	AIN1	EXTINT3	PTC:Y1			
GND							
D13 ~	PA17	EXTINT1	SCK	SER1:1/3:1*	TCC2:1/0:7	PTC:X5	
D12 ~	PA19	EXTINT3	MISO	SER1:3/3:3	TC3:1/TCC0:3	PTC:X7	I2S/SD[0]
D11 ~	PA16	EXTINT0	MOSI	SER1:0/3:0*	TCC2:0/0:6	PTC:X4	
D10 ~	PA18	EXTINT2	SS	SER1:2/3:2	TC3:0/TCC0:2		
D9 ~	PA07	AIN7	EXTINT7	SER0:3	TCC1:1	PTC:Y5	I2S/SD[0]
D8 ~	PA06	AIN6	EXTINT6	SER0:2	TCC1:0	PTC:Y4	
D7 ~	PA21	EXINIT5	SER5:3/3:3	TC7:1/TCC0:7	PTC:X9	I2S/FS[0]	
D6 ~	PA20	EXTINT4	SER5:2/3:2	TC7:0/TCC0:6	PTC:X8	I2S/SCK[0]	
D5 ~	PA15	EXTINT15	SER2:3/4:3	TC3:1/TCC0:5	XOUT		
D4 ~	PA14	EXTINT14	SER2:2/4:2*	TC3:0/TCC0:4	XIN		
D3 ~	PA09	AIN17	EXTINT9	SER0:1/2:1*	TCC0:1/1:3	PTC:X1	I2S/MCK[0]
D2 ~	PA08	AIN16	NMI	SER0:0/2:0*	TCC0:0/1:2	PTC:X0	I2S/SD[1]
D1	PA10	AIN18	EXTINT10	TX0	SER0:2/2:2	TCC1:0/0:2	PTC:X2	I2S/SCK[0]
D0	PA11	AIN19	EXTINT11	RX1	SER0:3/2:3	TCC1:1/0:3	PTC:X3	I2S/FS[0]