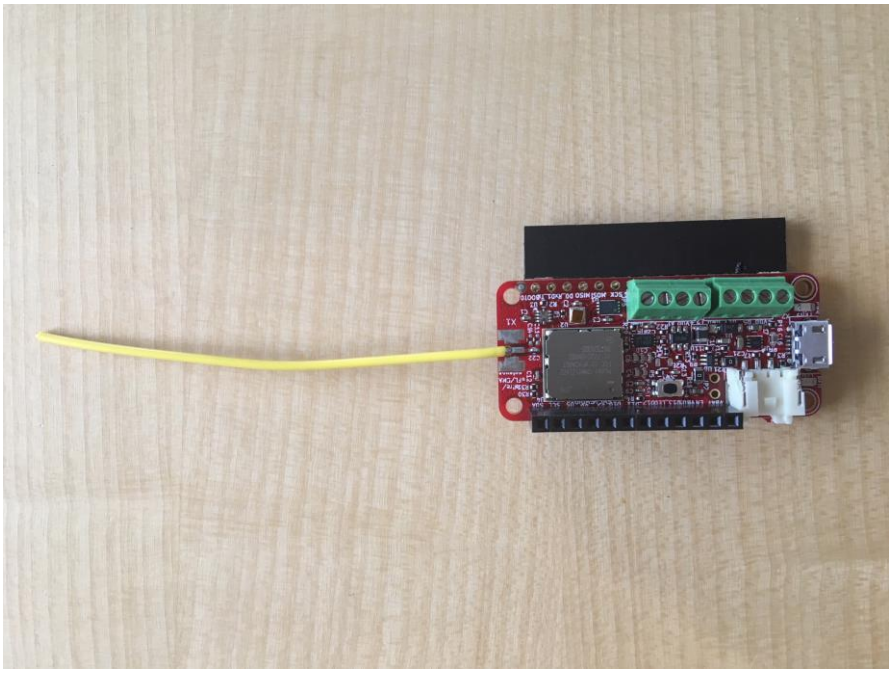
How to Get Started with Catena4551

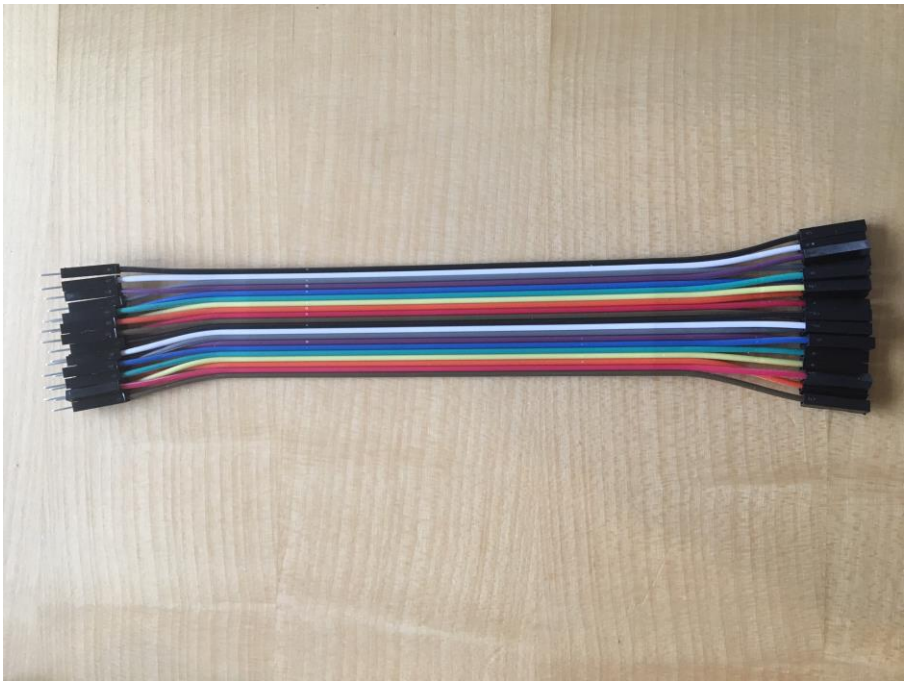
1. Hardware

1.1. Components

1.1.1. Catena 4551 board



1.1.2. Male-Female connectors



1.1.3. USB to Serial cable

1.2. Connecting Catena 4551 to ST-Link
(using jumper wire)

Please see the following pictures and figures for reference.

Note: Color code for jumper wires
Black = 0 ..
Brown = 1

Figure 1. ST-Link JTAG debugging flat ribbon layout

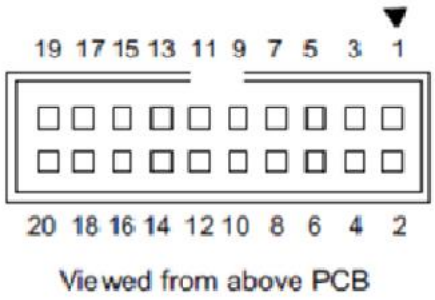


Figure 2. Catena4551 Pinouts

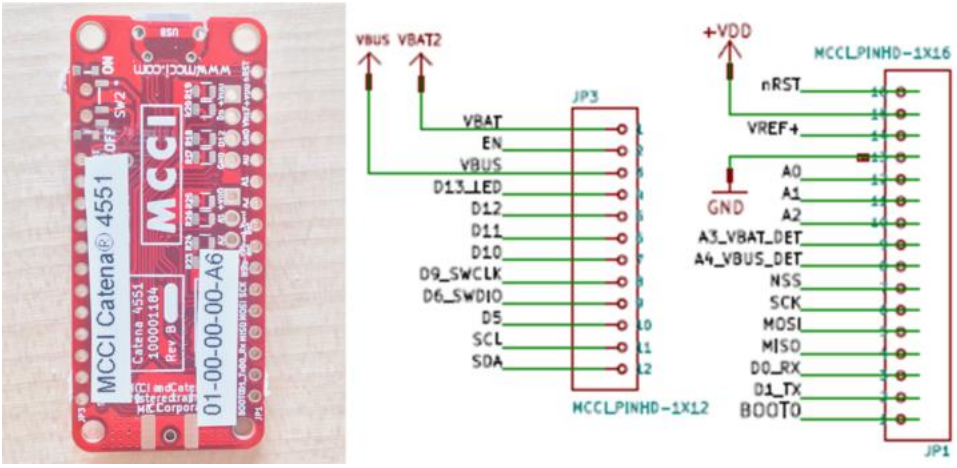


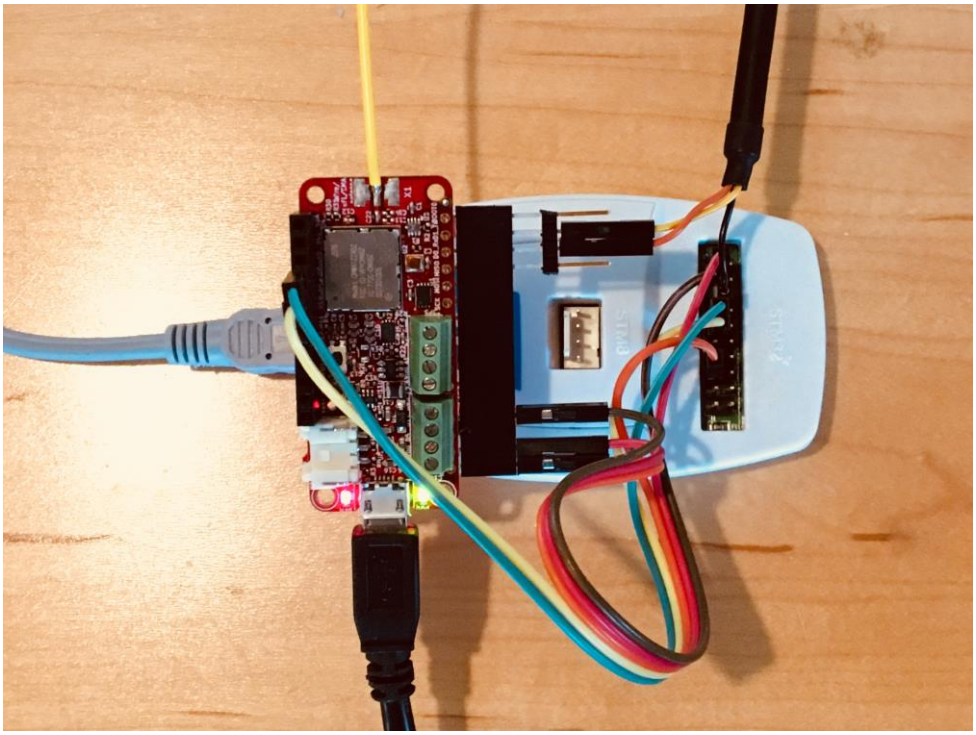
Table 1. Catena 4551 to ST-Link Connection

Note: All Pin 1s should have square pad.

ST-Link connection		
Catena4551	ST-Link	Wire (M/F Jumper)
VDD(JP1 pin 15)	pin 1	1 (brown)
GND(JP1 pin 13)	pin 3	2 (red)
SWDIO(JP3 pin 9)	pin 7	3 (orange)
SWCLK(JP3 pin 8)	pin 9	4 (yellow)
nRST(JP1 pin 16)	pin 15	5 (green)
Debugger serial connection		
Catena4551	**ST-Link**	**USB-to-Serial**
D0_RX(JP1 pin 3)		TX(Orange)
D1_TX(JP1 pin 2)		RX(Yellow)
	pin 5	GND(Black)

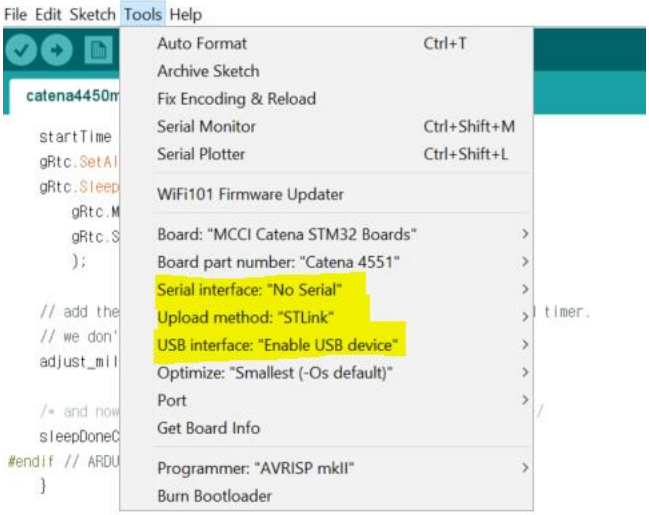
			Wire(M/M Jumper)
			Wire(M/M Jumper)
			Direct connect

Figure 3. Example of Completed Set-up

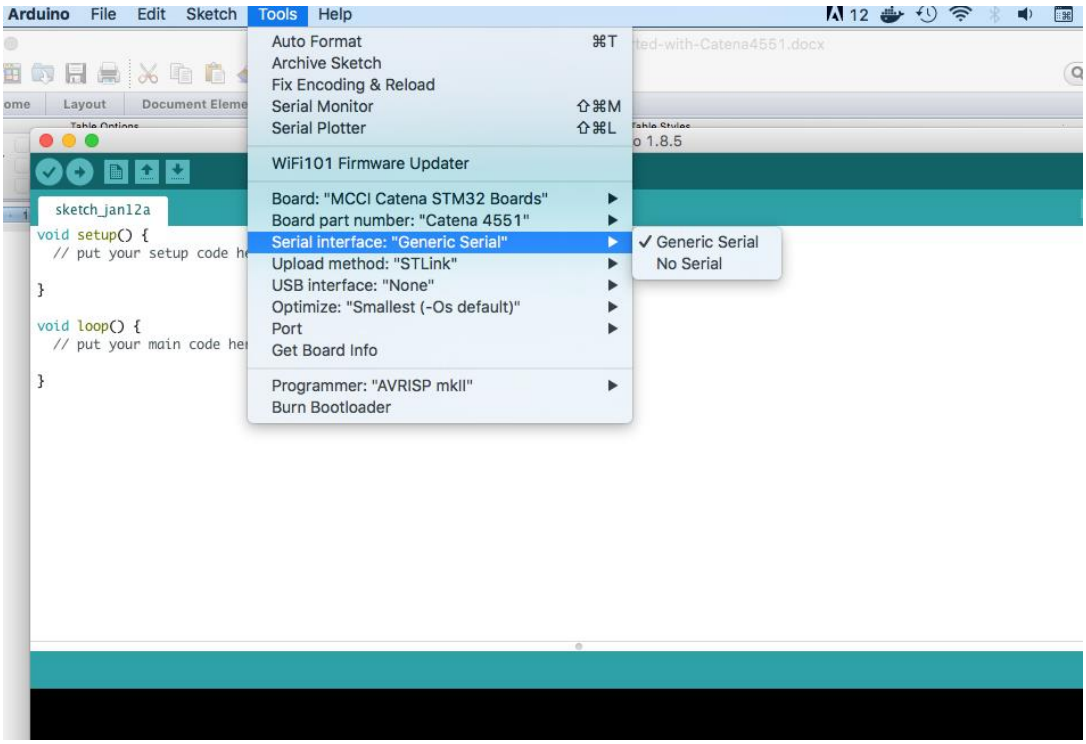


2. Arduino IDE Set

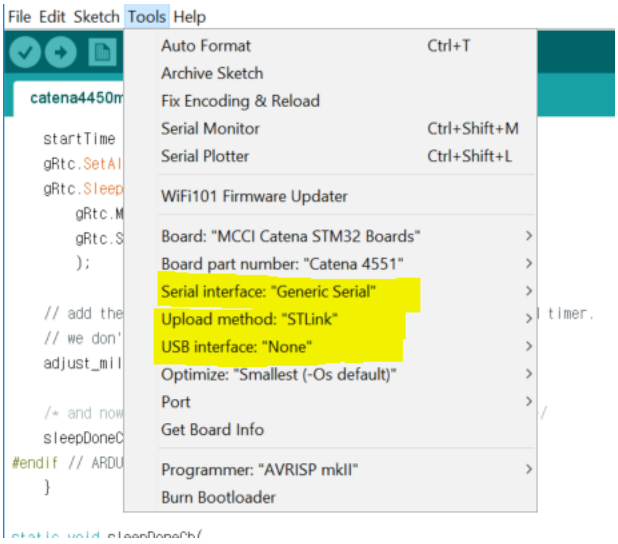
    2.1. Add https://raw.githubusercontent.com/mcci-catena/arduino-boards/master/BoardManagerFiles/package_mcci_index.json in Additional Boards Manager URLs under preferences
    2.2. Go to Boards Manager and install “MCCI Catena STM32 Boards”
    2.3. Go to Tools->Board and select “MCCI Catena STM32 Boards”
    2.4. To use the USB to Serial Cable to see the debug message,



For MAC Users



2.5. To enable USB,



2.6. Sketch -> Verify/Compile, then Upload

3. Pond-sensor

   If you want to use A2 as a data, the digital pin number for A2 is 16.

   Three wires - Orange Stripe connects to 3-5V, White connects to ground and Blue Stripe is data.