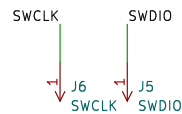


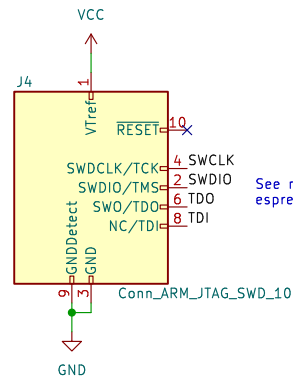
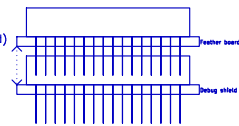
Pogo connectors to contact the SWD pads located on the Feather M0 bottom layer.



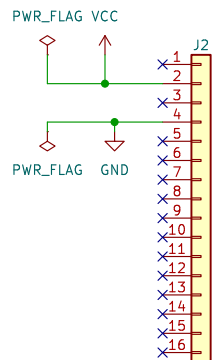
Calculation for connector height and pogo height:

This height was empirically calculated to be ~11.5mm. (the theoretical calculation is not completely accurate since the pin's travel inside the female side is not specified)

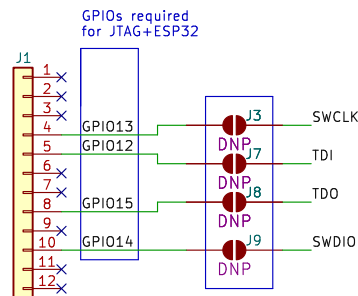
The pogo's height can lie between 10.795mm(0.425mils) and 12.192mm(0.48mils) (calculated using datasheet)  
Since the height of the connector lies between the pogo's actuation span, a good contact should be made



See more information on espressif's website for ESP32 connections.



Stacking header interfacing the EmotiBit and Feather.



We cannot use the debugger on ESP32 (for emotibit) as ESP32 pins cannot be simultaneously used for debugging and as IOs by the program.

1. GPIO13 : I2C clock
2. GPIO12 : EmotiBit button
3. GPIO15 : NC
4. GPIO14 : BMI\_INT1

Solder bridges have been added to make sure the debugger works with Feather M0 while providing avenue for future testing with Feather ESP32

Designed by NN

**Connected Future Labs**

Sheet: /

File: CFL\_EE\_FeatherDebugShield.kicad\_sch

**Title: FeatherDebugShield**

Size: A4 Date: 2023-11-10

KiCad E.D.A. kicad 7.0.6

**Rev: v01b**

Id: 1/1