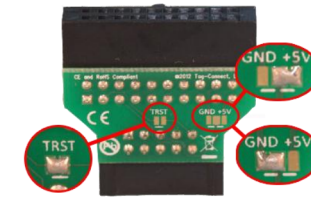


ARM 20-pin 0.1"		TC2050 10-pin (JTAG Mode)	TC2050 10-pin (SWD Mode)
1 VCC	2 NC	1 VCC	1 VCC
3 nTRST	4 GND	2 TMS	2 SWDIO
5 TDI	6 GND	3 GND	3 GND
7 SWDIO/TMS	8 GND	4 TCK	4 SWCLK
9 SWCLK/TCLK	10 GND	5 GND/+5V*	5 GND/+5V*
11 RTCK	12 GND	6 TDO	6 SWO
13 SWO/TDO	14 GND	7 (Not used)	7 RTCLK
15 RESET	16 GND	8 TDI	8 (Not used)
17 NC	18 GND	9 (Not used)	9 nTRST**
19 NC/+5V	20 GND	10 RESET	10 RESET



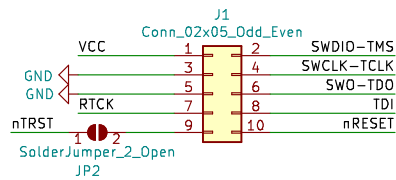
\*\* Left: Solder Bridge selects nTRST on pin 9

\* Above Right: Solder Bridge selects Debugger +5V on pin 5  
Lower Right: Pin 5 is GND (improves signal integrity)

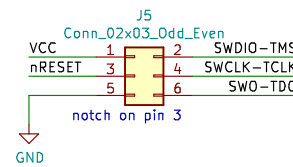
\* Pin 5 of the 10-pin connector (pin 5 of TC2050 footprint) can be used to supply power from some debuggers (see your debugger user guide for details). Solder bridge two pads as shown or select GND to improve signal integrity if power is not required. Note that some debuggers (ST-LINK/V2 for example) supply +3.3V instead of +5V.

\*\* Pin 9 of the 10-pin connector (pin 9 of the TC2050 footprint) can optionally supply nTRST - solder bridge as shown.

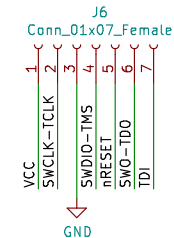
## TC2050 10-PIN



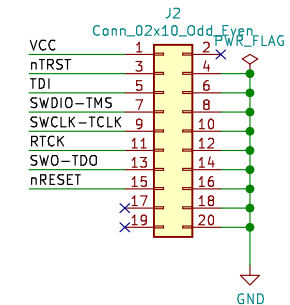
## TC2030 6-PIN



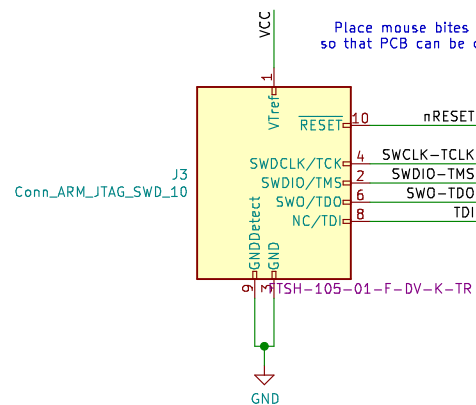
## ST-LINK



## ARM 20-PIN



## ARM 10-PIN 0.05"



## ARM 10-PIN 0.05"

