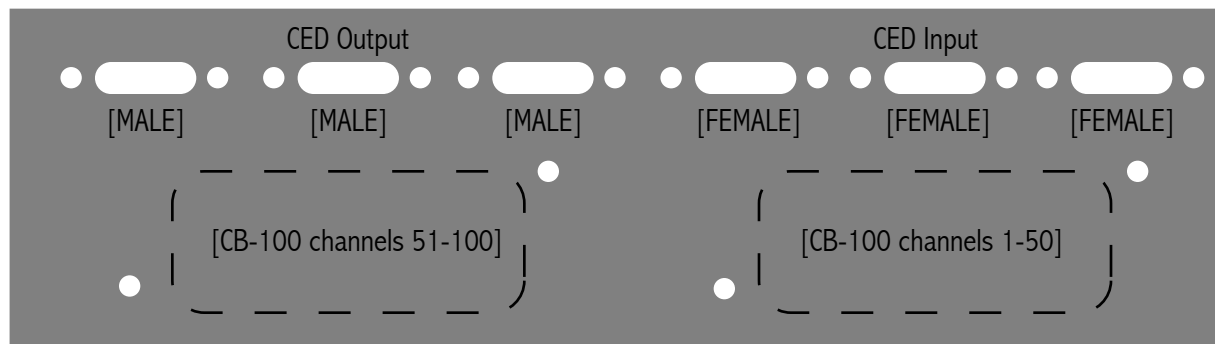


Rack-mounted Stimcode interconnect

In the Fitzpatrick lab we use a National Instruments PCI-DIO-96 parallel board for exchanging stimulus codes among various computers in the lab. This document describes the design of the interconnect box between the PCI-DIO-96 and any of the 1401 data acquisition boxes made by Cambridge Electronic Design. It leaves room for additional connections to a Optical Imaging V-DAQ computer system.

You will need: A rack-mountable piece of scrap metal, the CB-100 connector (777812-01) from National Instruments, three male 25 pin subminiature connectors (e.g., MML25K-ND from DigiKey), three female 25 pin subminiature connectors (e.g., MFL25K-ND from DigiKey).

After you have the parts, have a machinist punch out holes for the 25 pin connectors with roughly the following arrangement:



Outside view of panel

In addition, have a machinist punch out holes so you can mount the CB-100 units on the inside (roughly as diagrammed).

1 2 3 4 5 6 7 8 9 10 11 12 13
14 15 16 17 18 19 20 21 22 23 24 25

View of connector from outside looking at panel

Now using fine hookup wire, connect the channels of the CED input and CED output according to the following tables:

CED Input...CB-100 [grp1-50]

1...50 14...open
2...30 15...28
3...26 16...24
4...22 17...20
5...18 18...48
6...46 19...44
7...42 20...40
8...38 21...36
9...34 22...15
10...13 23...11
11...9 24...7
12...5 25...3
13...1

CB-100 channel 23 is StimSync
[one can put this to CED via BNC]
CB-100 channel 1 is StimTrig
CB-100 channel 19 is StopResp

CED Output...CB-100 [grp50-100]

1...1 14...3
2...5 15...7
3...9 16...11
4...13 17...15
5...34 18...36
6...38 19...40
7...42 20...44
8...46 21...48
9...18 22...20
10...22 23...24
11...26 24...28
12...30 25...Open
13...32