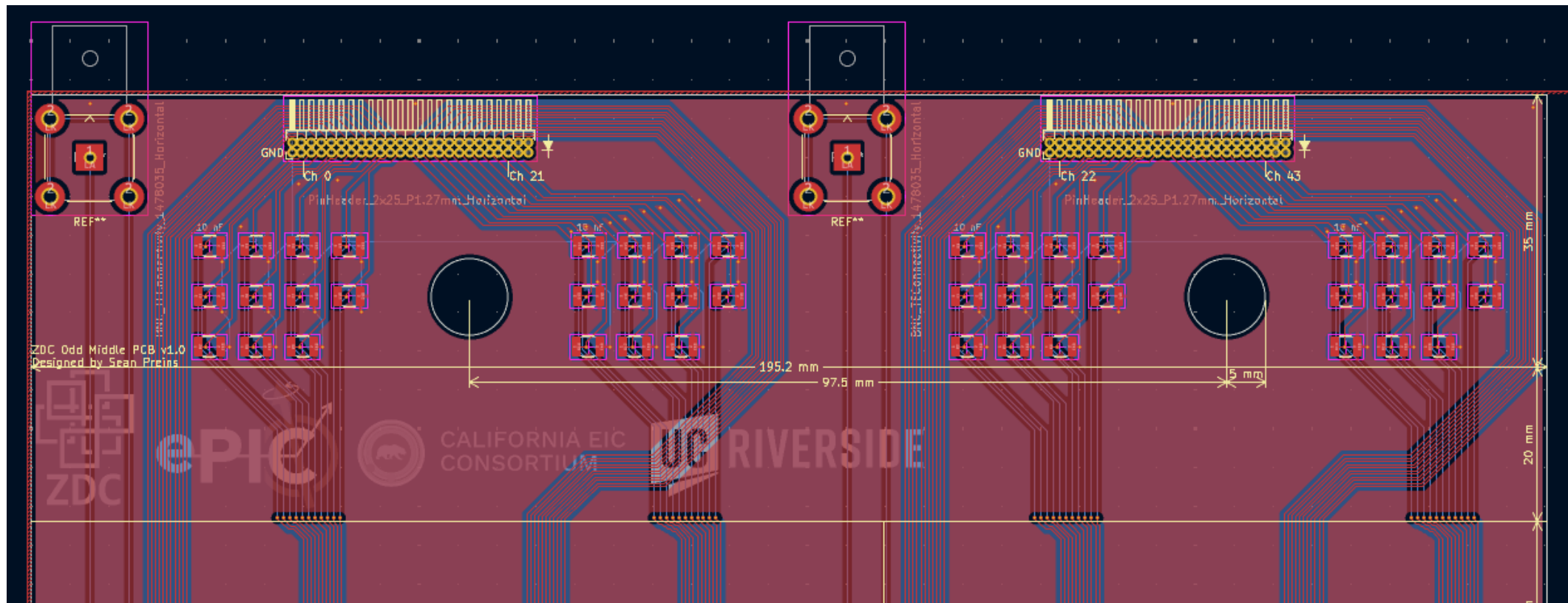
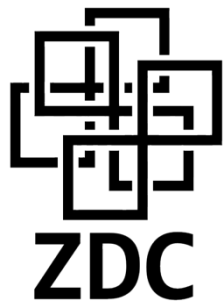


ZDC PCB Update

Sean Preins

6/17/26

- Version 1.0 of all 6 PCBs have been designed
- Identified in-stock connectors and cables to use
- Connectors have 90-deg bend to orient cables vertically, so alternating connector layout is not needed
- Includes pads + BNC connectors for LEDs



- PCB GitHub Repo
- https://github.com/SeanBP/KiCad_Boards/tree/main/ZDC-Boards
- 50 pin connector
- <https://www.allelcoelec.com/productdetails/AMP-Connectors-TE-Connectivity/5-104895-5.html>
- <https://www.allelcoelec.com/productdetails/AMP-Connectors-TE-Connectivity/5-104892-5.html>
- <https://www.allelcoelec.com/productdetails/AMP-Connectors-TE-Connectivity/104891-5.html>
- 26 pin connector
- <https://www.allelcoelec.com/productdetails/AMP-Connectors-TE-Connectivity/6-104069-3.html>
- Cable
- <https://www.digikey.com/en/products/detail/3m/1785-50-100SF/1190423>

Future Beam Test Goals

- Previous beam test was influenced by electrical cross-talk, which likely had an influence on position resolution and hit multiplicity. Re-measuring these would better validate simulations.
- Previous beam test used a high threshold for the MIP calibration. A new test would allow a proper EM energy scale calibration.
- A new beam test would validate minor PCB updates under beam conditions
- A new beam test could test LEDs in-situ (not done previously)
- A new beam test would help transfer knowledge to a new group of students