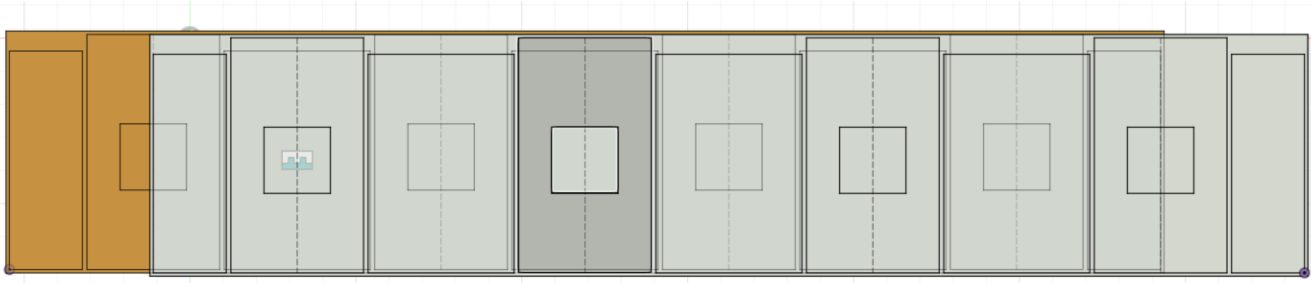




Jig for the demonstrator

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BTOF Demonstrator Assembly Meeting
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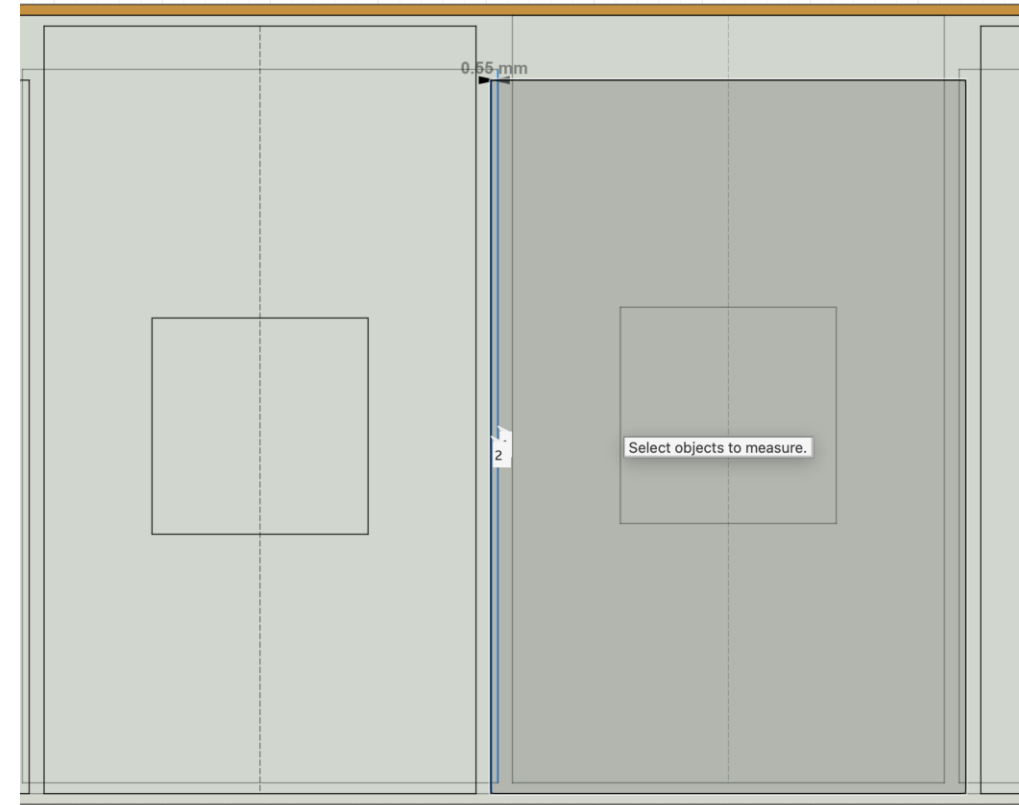


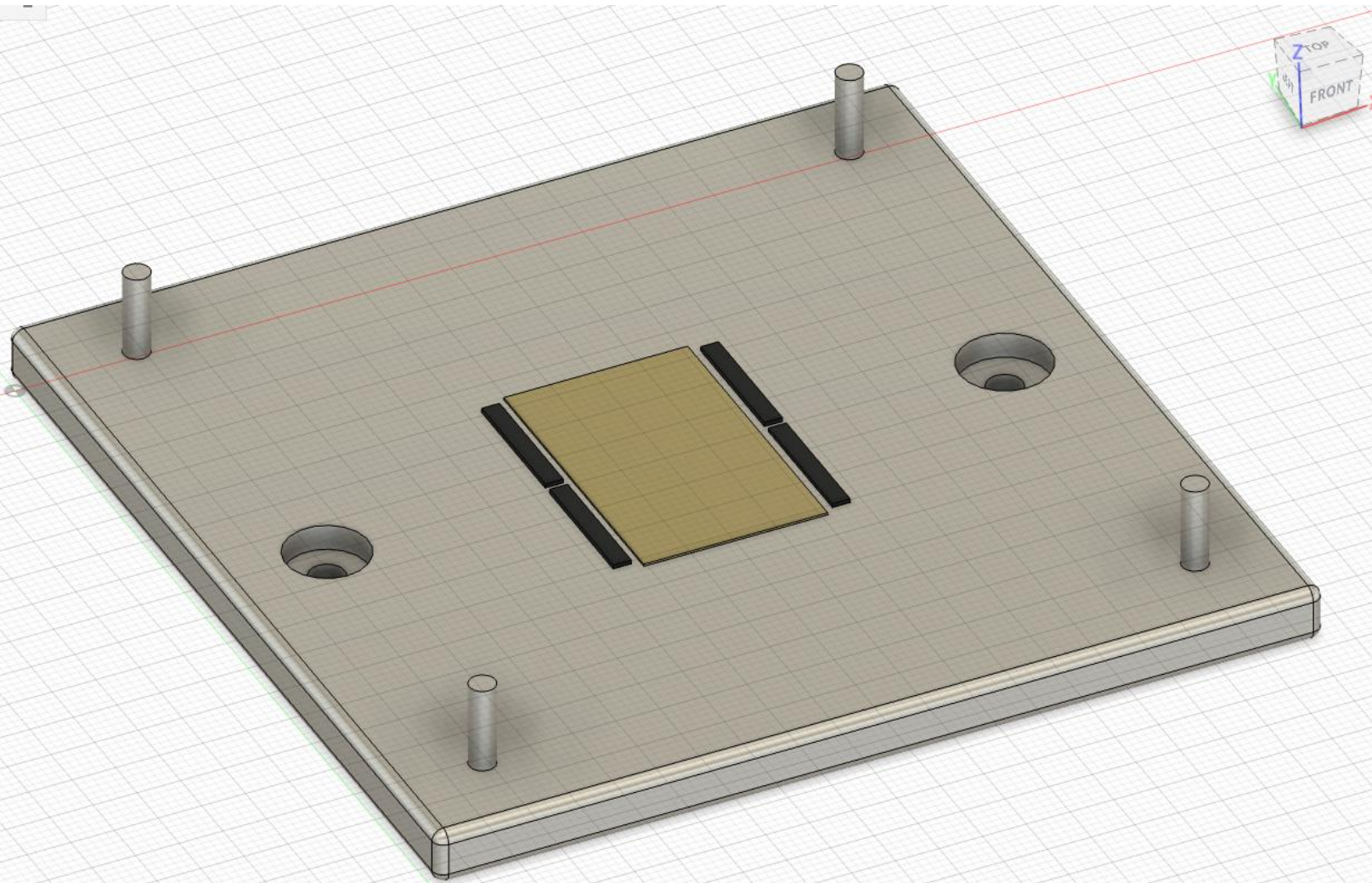
Alignment precision:

- $550\ \mu\text{m}$ – distance between edges of sensors, a.k.a. maximum tolerance
- $550\ \mu\text{m} / \sqrt{12} \approx 158\ \mu\text{m}$ - probably could be used as a loading precision upper limit

Main component specifications:

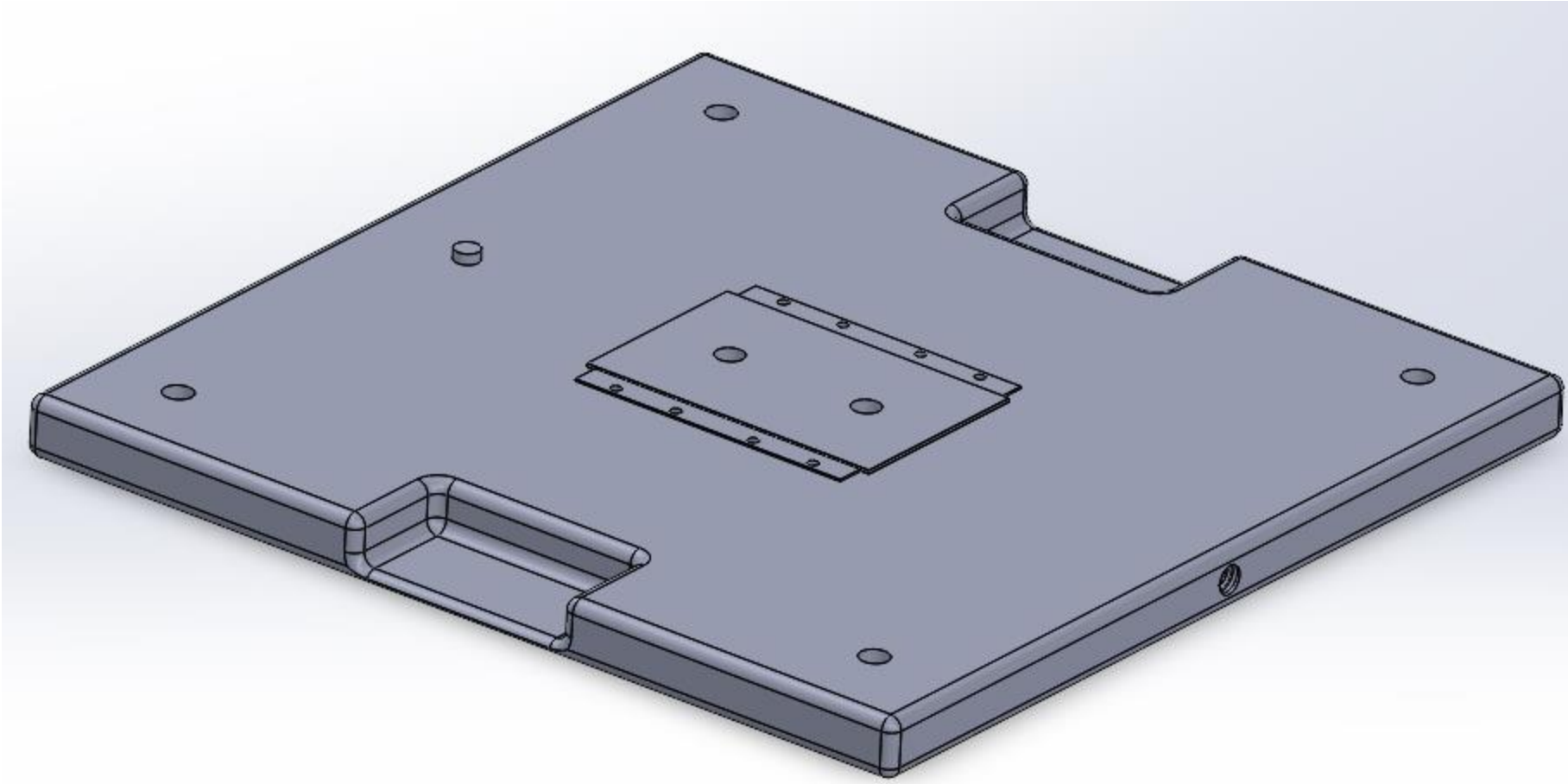
- Sensor:
 - $21.00\text{mm} \pm 0.05\text{mm}$ vs. $33.00\text{mm} \pm 0.05\text{mm}$
 - Thickness: $400\ \mu\text{m}$ (we assume $50\ \mu\text{m}$ tolerance)
- FCFD:
 - $2.00\text{mm} \pm 0.05\text{mm}$ vs $15.00\text{mm} \pm 0.05\text{mm}$
 - Thickness: $650\ \mu\text{m}$ (we assume $50\ \mu\text{m}$ tolerance)





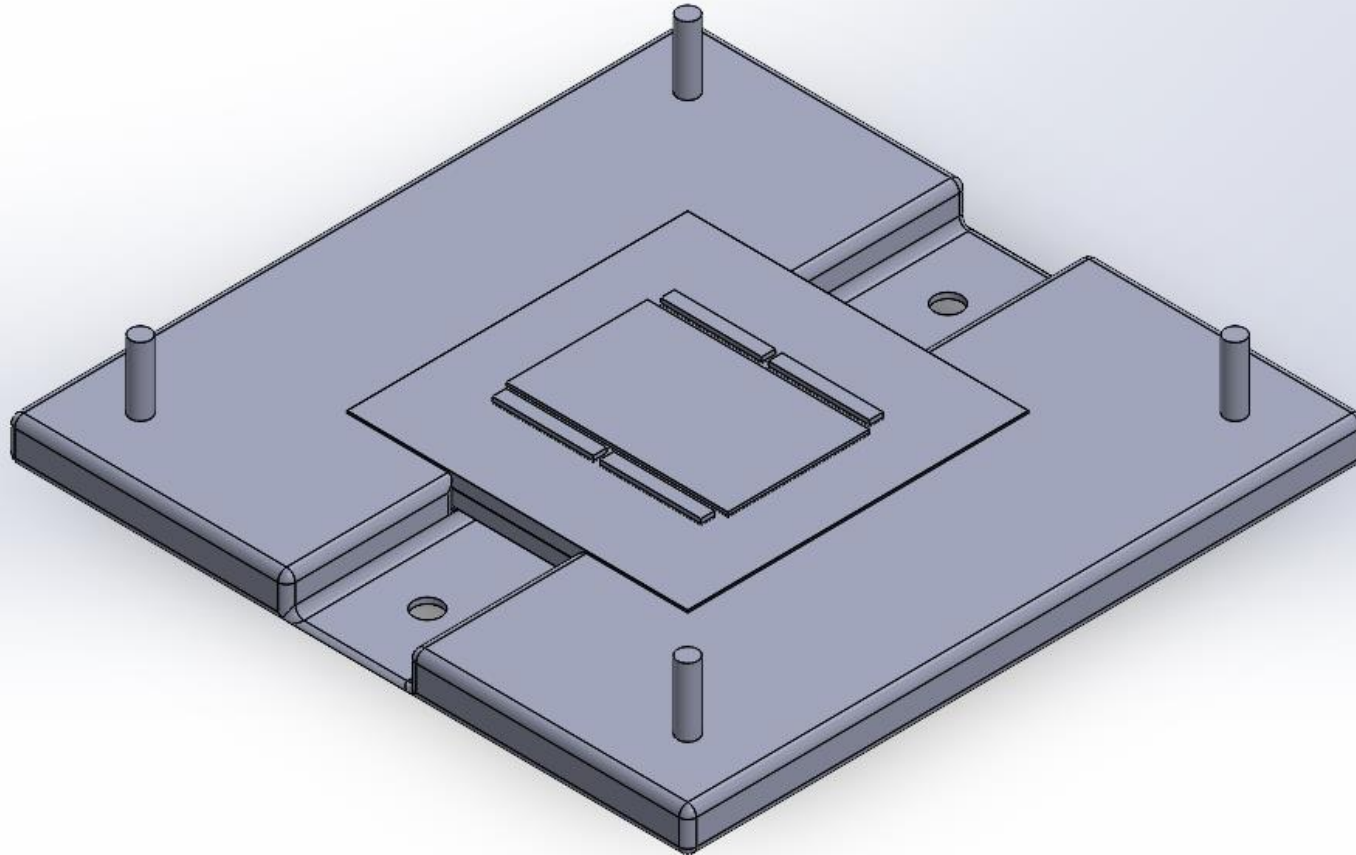
Source jig for initial component loading:

- Fixture with pins
- Components put into the milled pockets
- Possibility to provide vacuum suction
- Initial Position accuracy is 50 μm



Vacuum suction jig for component pickup, transfer, and loading:

- Fixture with holes for pins
- Uses pressure to draw and hold components securely against raised reference points.
- Stop pins prevent components from slipping or impacting surfaces during placement.
- Hand-holds to help pick it up



- Jig for component placing:
- Fixture with pins
 - A base shim and cut shim go into the milled pockets
 - Shim with cuts will be used for glue dispensing; components will be placed on top of the glue layer
 - Hand-holds to help pick it up
 - For the final version, the specifications of the components and loading environment will be needed (not yet available)