STEAMVR™
Tracking Training

STEAM® VR

Tracking Training

Prototyping Objects

Mechanical Considerations

- Design initial models to take advantage of rapid prototyping techniques
  - FDM
  - SLA
- Shapes only need to carry sensors in the correct locations and orientations
  - No sensor covering
  - Accommodate the Chicklet sensor boards
  - Rough mounting for HDK PCBs
- Avoid the shadow effect when mounting inside a housing
  - Sidewalls around uncovered sensors may block the signal
  - Chamfer the sidewalls so no portion of the sensor viewing angle is obstructed

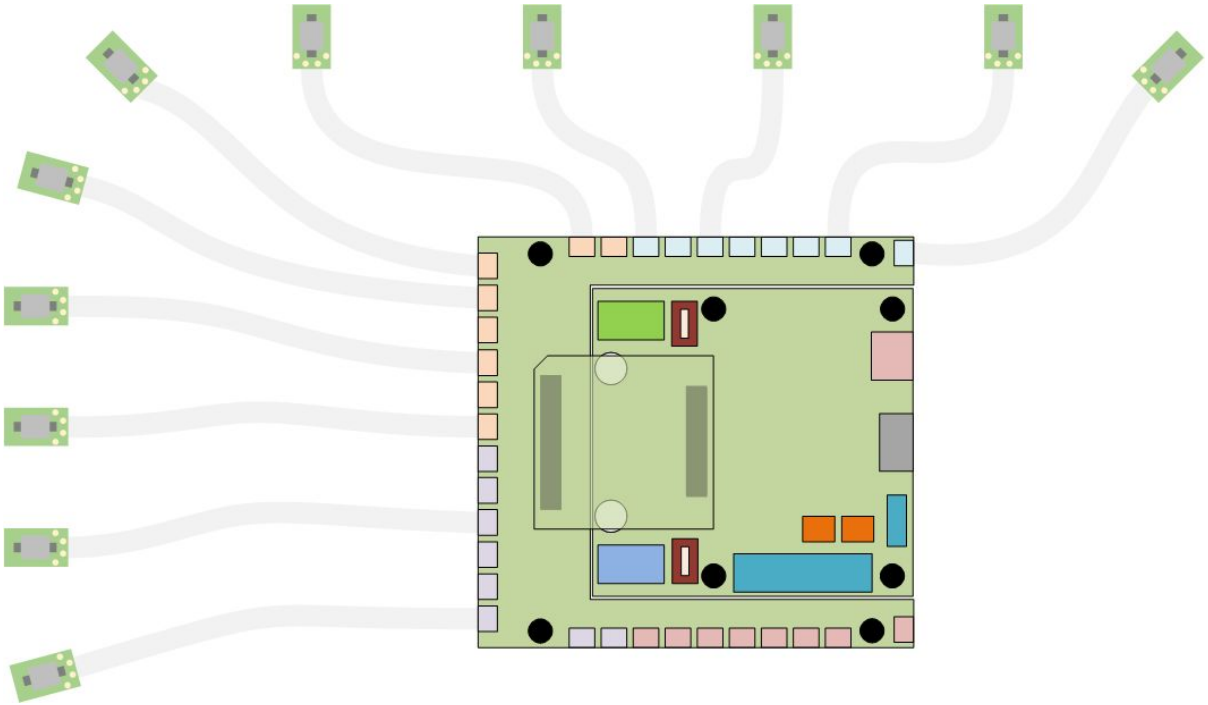
HDK Hardware

- Sensor Boards “Chicklets” x 40
  - Be gentle with the WLCSP packages
- Core Module
- EVM Application Board
- Sensor Breakout Boards
  - 32 perimeter sensor connections
  - 32 north-facing sensor connections
- Trackpad Controller Board

- Accessories
  - Sensor FFCs
  - Battery
  - Antenna
  - Trackpad
  - USB Dongle

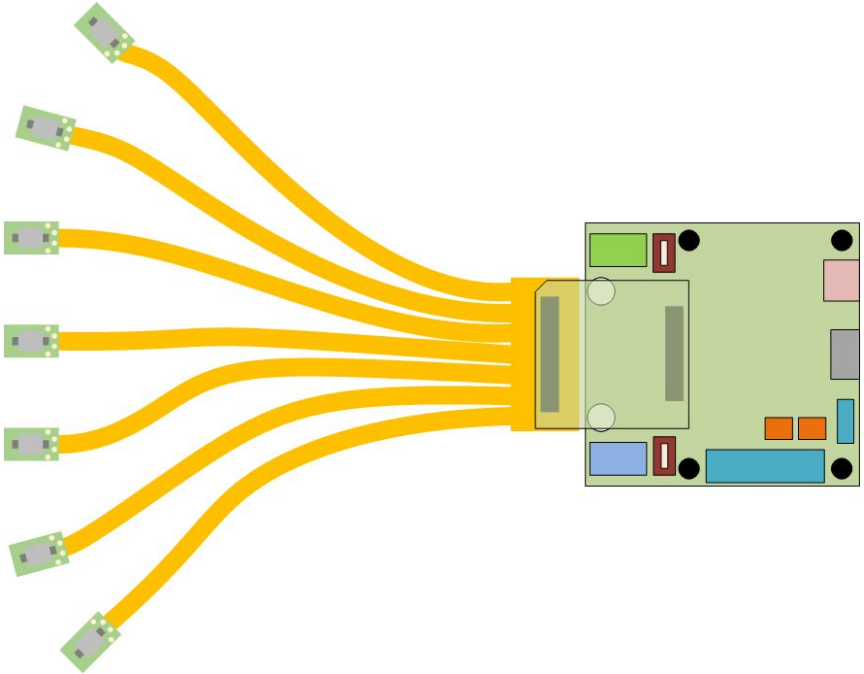
Prototype: Option A

- Use only HDK hardware



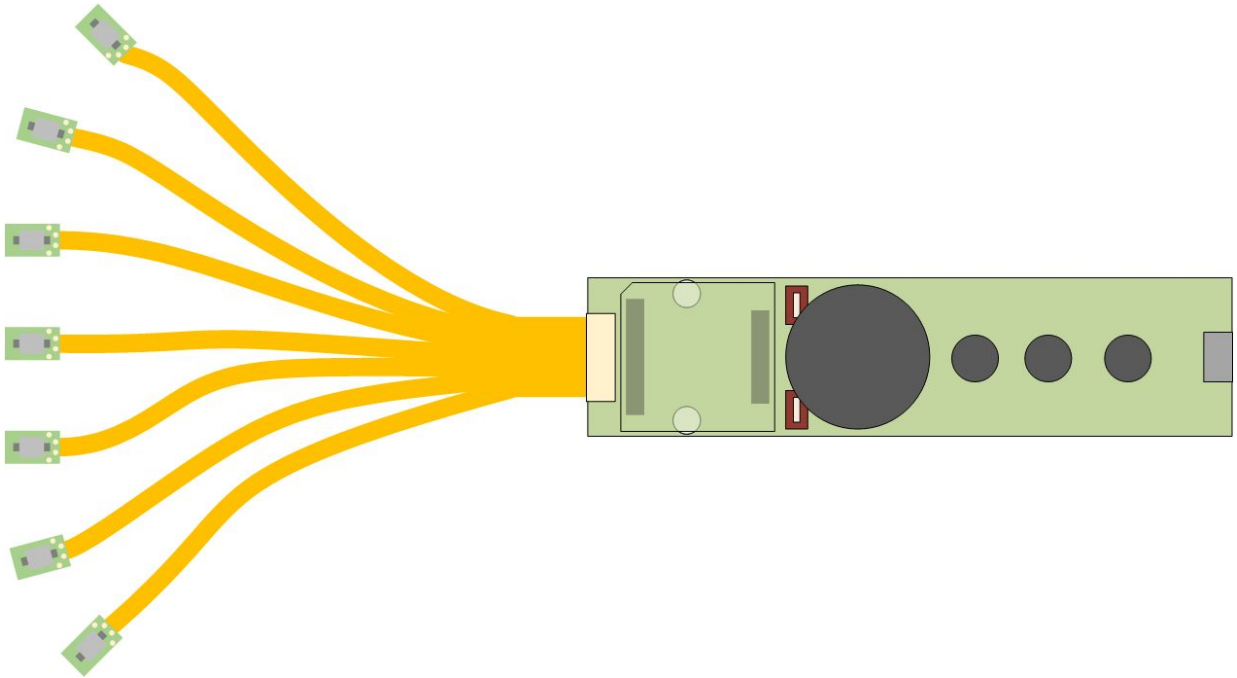
Prototype: Option B

- Replace the sensor breakout



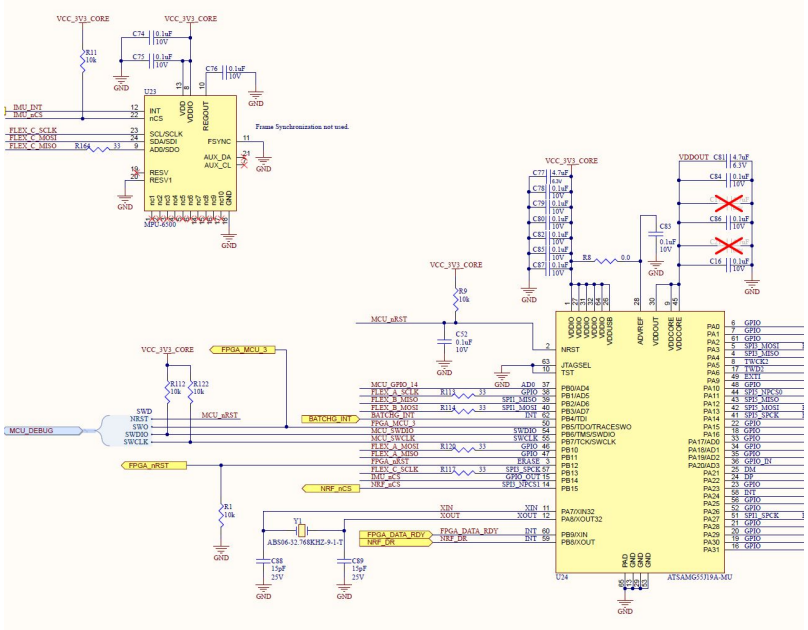
Prototype: Option C

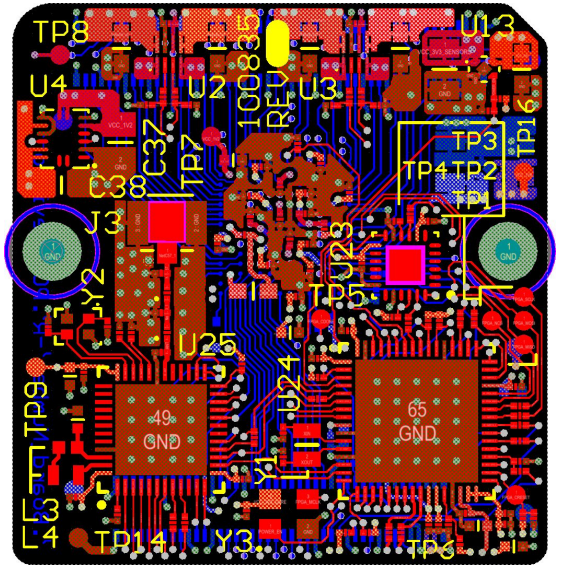
- New application board, reuse the core module



Prototype: Option D

- Completely new design based on HDK design files





Binocular Display Development

- Add tracking to binocular displays using the reference object
  - Change the “device_type” to “hmd”
  - Adjust the “head” variable
  - Set the display parameters
  - Add the necessary optical calibration data

Start Simple

Choose a simple shape with a minimum of sensors and try it out!