

Protocol – Mid-Term Presentations

Time, Date: 15:00 – 18:00, 23.06.2025

Location: SCDH, Nidau

Participants:

- David Wollschlegel (SCDH)
- Monika Codourey (SCDH)
- Hilko Cords (Coach IP6)
- Kevin Kim (Coach IP6)
- Jasjot Singh (Student IP6, 1:1 Sandbox)
- Luc Hartmann (Student IP6, 1:1 Sandbox)
- Simon Friedli (Student IP6, AR)
- Sean Mengis (Student IP6, AR)

Content

The goal of this meeting was to give the students to prepare for the final presentation in September, inform the participants of the current progress and gather feedback. Both teams presented their projects and did a demonstration.

Appointments

The final presentations will be held on the 3rd of September. Times are as follows:

- Lifesize Floorplans in MR: 14:30 – 15:30
- Architects 1:1 Sandbox: 16:00-17:00

The coaches will be on holiday between the 12.07 and 07.08 and the students should send the current documentation until the 05.08 (earlier would be better).

Feedback Architects 1:1 Sandbox

- The presentation was clear and well done. One suggestion is to add an intro slide before the agenda that shows what the project is about, why it was done, when it happened, and what was achieved. Include pictures and key results.
- The storyboard was a good starting point. It would be helpful to also show the current situation without your system to better explain the problem and how your solution helps.
- Camera placement is important. Drawing becomes hard when the hand blocks the light. Try a better position or maybe more than one camera.
- Scale and size should be shown more clearly. Use a grid (for example, 1 meter = 191.45 pixels) and make it the standard background.
- Show how the drawing on the table connects to the real projection on the wall or floor. This is especially important for the field test at SCDH.
- For the final presentation, include videos and photos from real testing at SCDH.

- Keep the agenda short, with only a few points. Show the main solutions during the presentation. Explain theory in the written report.
- Use the research questions to structure the presentation. At the end, show the questions again and what was solved.
- Use your own images, avoid repeating the same things, and add page numbers.
- Do user testing and share the results. Use the System Usability Scale (SUS) and write down what users liked or found difficult.

Feedback Lifesize Floorplans in MR

- Discuss the possibility of using physical walls and only displaying objects to enhance the immersion. This could also be a use-case for the HoloLens which has a reduced field of view.
 - o Which headsets have which use-cases/benefits. Ex. HoloLens is comfortable, and you forget you are wearing it
- The introduction must be improved. Possible improvements:
 - o Story board
 - o Explain situation/project requirements
 - o One slide about the SCDH
 - o Examples of different XR application use-cases
 - o Better visualize the difference between XR, VR, MR, AR so that the difference is clear in one minute
 - o Present the research questions
 - o Better explain the Why
 - o Too many points in the agenda (20min presentation + 10min demonstration)
- Explain what is possible and comparing it can be very valuable (add why occlusion is blurry, how accurate does it have to be)
- Interaction with an object would be nice to see and experience
- Implement interaction with physical objects on the Meta Quest
- The participants also liked the full VR experience on the Pico. -> Create a toggle to switch between Passthrough and full VR.
- Focus on the Meta Quest for further research
- Write down the problems and experience with the different SDKs
- Occlusion is an important topic for this project
- Explain inside-out and outside-in and how they work
- Prioritize calibration then focus on tracking objects
- Create a table for different kinds of tracking
- Shading and lights are essential in the demonstration
- Come back to the research questions in the end

Next Steps

The students should send the current progress of the documentation to their coaches before the 05.08.