**Discord XR: Galaxy Social Hub**

**Testing plan for interactive prototype 1**

This project redesigns Discord for XR and presents the platform as a navigable galaxy for social connection and meetings.  
Planets represent voice channels and users join by dragging a chosen planet toward themselves.  
Inside the channel, users sit at benches and communicate with other people while represented by their own avatars.

**Testing Objective**

From my above concept, I have identified unvalidated assumptions about the discoverability, efficiency, and understanding of three interactions: joining a channel by rotating and dragging planets, sitting and changing seats with the F key, and clicking the black zipper on another user’s avatar to mute or unmute. This test aims to discover the time to complete each micro task and each total task, the error rate and hesitation points, the SUS score for overall usability, and key reasons from Think Aloud that will let me evaluate my objective.

**Testing Methodologies**

This testing plan uses mixed methods to evaluate a digital prototype made in Unity.

* Task completion time is the primary measure. For each task (Tasks 1–3), I will record the total time for that task and the time for each micro-step within that task.
* SUS is a secondary quantitative measure. It has ten items on a five point scale and a score from 0 to 100.
* Think Aloud is qualitative. Participants say what they think while they do the tasks.
* Prompts are neutral. I will use only “Please keep talking.” and “What are you thinking now?”.

**Prototype description/requirments**

The prototype was designed to provide interactive tasks for mixed methods evaluation. It measures total time and error rate for joining a channel, sitting and changing seats, and muting or unmuting a user. It also captures overall usability with the SUS and qualitative insights through Think Aloud.

**It** is built in Unity and shows a galaxy with many planets. It lets users right click to rotate planets. It lets users left click and hold to drag a target planet close, then keep holding for three seconds to enter the channel. It lets users walk to a table and press F to sit or stand, and change seats at any time. It lets users click the black zipper on users’ head icon to mute or unmute; grey means muted and green means not muted.

**Data collection method**  
During the testing process, I will be recording time for every task and micro task, logging optional errors, and capturing SUS and Think Aloud to document the results of the process.

* I record total time for each task and micro step time for Task 1-3 with a timer.
* I use laps to mark Task 1.1 to 1.5, Task 2.1 to 2.4, and Task 3.1 to 3.3.
* I write times in a data sheet with participant id and Discord experience level from one to five.
* I mark timed out if a time cap is reached and then continue.
* I log optional error count for each task when it happens.
* I ask the SUS after tasks and record ten item scores from one to five. I compute the SUS score after the session.
* I run Think Aloud for the whole session and write one or two key quotes and one fix idea.

**Testing Setup**

This is what I need to do to setup the test and be ready for participants.

* Prepare a laptop with the Unity build, mouse, and keyboard.
* Open the prototype at the galaxy scene and reset between users.
* Prepare a timer and the data sheet file.
* Print or open the SUS form.
* Set up screen recording if allowed and check audio.
* Prepare a short consent script and remind that this is a system test.
* Check that tables, planets, zipper icons, and the F key action all work.
* Have backup power and a spare input device.

**Testing process: (also considering the schedule/time)**

1. Welcome, information and consent, and a Think Aloud briefing. Ask the participant to verbalize what they perceive, what they expect, and why they choose actions. Explain that neutral prompts will be used when needed. (20 to 30s)
2. Confirm the start position in the galaxy scene. Start all timers. Remind the participant to continue Think Aloud from this moment. (10s)
3. Task 1: Join one channel planet. Record Task 1.0 total time. Mark laps for the following micro steps: Task 1.1 rotate and explore, Task 1.2 find a planet of interest, Task 1.3 press and drag, Task 1.4 approach the entry zone, Task 1.5 hold to join. Stop either at successful entry or at the time cap. (≤75s)
4. Task 2: Sit and change seats. Record Task 2.0 total time. Mark laps for the following micro steps: Task 2.1 reach the first table, Task 2.2 first sit with key F, Task 2.3 reach the second table, Task 2.4 second sit with key F. Stop at the time cap. (≤90s)
5. Task 3: Zipper mute and unmute. Record Task 3.0 total time. Mark laps for the following micro steps: Task 3.1 find the zipper control, Task 3.2 mute, Task 3.3 unmute. Stop at the time cap. (≤45s)
6. SUS questionnaire. Ten items scored from one to five. Do not discuss the wording of items during scoring. (40s)
7. One open question. Ask, What is one thing you would fix. Capture one verbatim quote. (20s)
8. Save data and reset. Save all records, reset the prototype to the galaxy view, and thank the participant. (10s)