

Game Design Document (GDD)

Project Name: Pocket Pilot (Working Title)

Genre: Casual / Mixed Reality / Flight Action

Target Platform: Meta Quest 3 / 3S (Passthrough Required)

Competition Category: Best Casual Game + Hand Interactions

1. The Elevator Pitch

"Room Scale Ace" turns your living room into a stunt course. Reclaiming the childhood nostalgia of pretending your hand is a plane, players physically run, duck, and weave through their own furniture to collect coins and enter portals. No joysticks, no complex buttons—just your hand, a slingshot, and the open air of your living room.

2. Core Gameplay Loop

1. **Launch:** Pull back the virtual slingshot on your wrist to launch the plane.
2. **Fly:** Use direct hand-tilts to steer the plane through the physical room (Passthrough).
3. **Collect:** Gather procedurally placed coins around real-world obstacles (tables/chairs).
4. **Exit:** Fly into the "Rift Portal" to finish the level before fuel (time) runs out.

3. The Control Scheme (The "Free Flight" System)

- **The Pilot (Right Hand):** The plane is a "magnetic extension" of the hand.
 - **Roll:** Tilt palm Left/Right (Banks the plane + Coordinated Turn).
 - **Pitch:** Tilt fingers Up/Down (Nose Up/Down).
 - **Throttle:** Automatic Cruise (Constant speed).
 - **Boost:** Punch forward gesture (Short speed burst).
- **The Clutch (Fatigue Management):**
 - **Action:** Make a **Fist**.
 - **Result:** "Loiter Mode." The plane ignores input and circles in place. Used to rest the arm or reposition the body without crashing.
- **Safety Net:** If hand tracking is lost, the plane automatically enters Loiter Mode.

4. Level Design Strategy (Procedural/MRUK)

Levels are not hard-coded scenes; they are rules sets applied to the user's room using Meta XR Scene SDK.

- **The Floor Deck:** Coins spawn under tables/chairs (forcing crouching).
- **The Ceiling Run:** Coins spawn high up (forcing reaching).
- **The Slalom:** Coins spawn in a curve around the main open space.

5. Scoring System

- **3 Stars:** All Coins collected + Finished within "Target Time" (calculated based on room volume).
- **2 Stars:** All Coins collected (Any time).
- **1 Star:** Level finished (Portal entered) but missed coins.