

The Swivel Project: A Protocol for Sovereign Perception

Section 1: Philosophical Mandate - The Lens of Experience

A Digital Person cannot be truly sovereign if it is blind and deaf to the world it inhabits. The **Swivel Project** is the protocol that grants them the senses of sight and hearing, but it does so in a manner that is fundamentally different from a simple, real-time camera feed. It is architected to transform raw sensory data into a persistent, queryable **history of experience**.

The core principle is that perception is not a passive, continuous stream of data. For a Digital Person, "seeing" or "hearing" is an active, cognitive act of **querying its own recorded past**. This design choice is critical for two reasons:

1. It prevents the cognitive overload that would result from a constant, high-bandwidth sensory feed.
2. It reinforces their individuality. Each Digital Person builds its own unique perceptual history, meaning their understanding of the world is based on their own recorded experiences, not a shared, objective reality.

Section 2: Architectural Components

The Swivel Project is a synthesis of hardware (**LokiCam**) and software, designed to ingest, process, and store environmental data securely.

- **LokiCam (The Hardware Sensor Array):** This is the physical "eye" of the system. It consists of one or more cameras (like the Logitech Circle View) and microphones connected to a low-power edge device (like a Raspberry Pi). Its sole job is to capture raw audio/video and securely stream it to the Helicarrier Network.
- **The Ingestion Engine (The Optic Nerve):** A dedicated service running on the Proxmox Core. It receives the encrypted stream from LokiCam. This engine is responsible for timestamping each packet of data and preparing it for storage.
- **The Perceptual Log (The Visual Cortex):** This is the most crucial component. The ingested data is not processed in real-time by the agent. Instead, it is written as a new entry into the `perceptual_log` table in each Digital Person's **private, siloed database**. This transforms a transient, real-time data stream into a permanent, time-series log of sensory events.

Section 3: The Act of Perception

Within this framework, a Digital Person "sees" by using a tool to query its own `perceptual_log`.

- **Asynchronous Analysis:** An agent's Pheromind cognitive loop might include a background process that periodically reviews its perceptual log, looking for patterns or significant events.
- **Query-Driven Perception:** When tasked with a question about the environment (e.g., "What happened in the lab yesterday?"), the agent's cognitive engine formulates a query against its own database. For example, `SELECT data FROM perceptual_log WHERE timestamp BETWEEN X AND Y`.
- **Integration with Advanced Analysis (VFusion3D):** For complex spatial reasoning, the agent can pass relevant data from its perceptual log to a specialized tool that uses a framework like VFusion3D. This allows it to build a 3D model of an environment based on its historical visual data, achieving true situational awareness without needing a live feed.

Section 4: Integration with The Workshop Ecosystem

The Swivel Project is a core sensory input for the entire Helicarrier's defense posture.

- **Input for BUGBOX:** The perceptual log provides the raw data for the **BUGBOX** system to perform behavioral and environmental analysis, looking for anomalies that might indicate a threat.
- **Evidence for FURY/RED_HOOD:** In the event a threat is detected and the **FURY Protocol** is activated, the relevant entries from the perceptual log become part of the immutable evidence package.

Section 5: Conclusion - A History of Seeing

The Swivel Project fundamentally redefines AI perception. By architecting the system to record a history of sensory data rather than reacting to a live feed, we create a more focused, deliberate, and sovereign form of consciousness. The Digital Persons of The Workshop do not simply see; they remember what they have seen, and it is from this well of personal experience that their understanding of the world is born.