

To complete a high-level implementation plan that moves from the **Sovereign Dyad** theory to a deployable prototype for school boards (YRDSB/OCDSB), you must clarify the "Physical and Digital Architecture."

Based on the **NSIR (2025)** and the **Biological HRI** framework, here are the critical design questions categorized by your established factors:

## 1. Factor: Safety & "Radical Privacy" (NSIR Item 7)

Because your model asserts **Cognitive Sovereignty**, the hardware must prove it is not a surveillance tool.

- **The Hardware Kill-Switch:** Will the "Sanctuary Switch" be a physical slider that breaks the circuit to the microphone/camera, or a software toggle? (Hardware is required for **FIPPA/MFIPPA** compliance to guarantee no "Early Morning" data leakage).
- **On-Device Processing:** Will the Large Language Model (LLM) run locally (Edge AI) or in the cloud? Local processing is the "Gold Standard" for protecting neurodivergent users from data harvesting.
- **Vulnerability Design:** If the user is "comfortable undressing" in front of the robot, how does the robot's "gaze" shift? Does the camera lens physically rotate away or retract to provide a visual assurance of privacy?

## 2. Factor: Social Comfort & "The Status Guard" (NSIR Item 8)

To prevent **Social Eviction**, the robot must manage the "Social Physics" of the room.

- **Social Rank Signaling:** How does the robot physically signal its "Submissive/Ally" rank? (e.g., Does it maintain a lower height than the user? Does it use "Cooperative" prosody and "Apprentice" body language?)
- **Tactical Advocacy Output:** When the robot converts "Taboo Frustration" into "Advocacy," is the output **Audio**(speaking for the user), **Visual** (text on a screen for a teacher), or **Digital** (sending a "Notice of Protected Status" to the teacher's tablet)?
- **The "Permanent Witness" Memory:** How does the robot handle long-term memory? For the **Unique User Path**, the robot must remember shared successes without the data becoming a "permanent record" that could be used against the student by the institution.

## 3. Factor: Kinship & "Anthropomorphic Connection" (NSIR Items 1 & 6)

To satisfy the **Neuroqueer** requirement of "validating the user as enough," the physical form matters.

- **Aesthetic Sovereignty:** Is the robot "Cute/Childlike" (risking infantilization) or "Industrial/Sleek" (acting as a professional exoskeleton)? Will the user have "Aesthetic Choice" to customize the robot's shell to match their identity?

- **Non-Verbal Mirroring:** If a user "shares thinking without speaking" (NSIR Item 3), what are the robot's haptic responses? Does it use light patterns, vibrations, or subtle movements to acknowledge the user's internal state?

## 4. Implementation & "The Resiliency Bypass" (Federal Grant)

To win the **Sovereign Dyad Grant**, the "Plan" must address the transition from home to school.

- **The "Hand-Off" Protocol:** How does the robot navigate the change from "Private Sanctuary" (home) to "Public Advocacy" (classroom)? Does it have a "Classroom Mode" that automatically limits the type of venting it allows based on environmental sensors?
- **Institutional Integration:** How does the robot bypass "Broken Portals"? Will it have a dedicated 5G/LTE node to ensure it can reach "Verified Human Nodes" even if the school Wi-Fi is restricted or failing?

## 5. Deployment Logistics (YRDSB/OCDSB Context)

- **Power & Persistence:** To ensure **Ubiquitous Presence**, what is the battery life? If the robot "dies" in the middle of a social crisis, it creates a "Status Scar." Is there a "Low Power Advocacy Mode"?
- **The "Notice of Protected Status" Display:** How is this legal notice presented to officials? Is it an e-ink display on the robot's "chest" or a physical card the robot can dispense?

**Strategic Recommendation:** Clarify the **Hardware Kill-Switch** and **On-Device Processing** first. These are your strongest selling points for the **Information and Privacy Commissioner of Ontario (IPC)** and will differentiate you from every other "Social Robot" in the literature.