# Karakuri System Overview

### Project Karakuri

### October 14, 2024

## 1 Introduction to Karakuri (絡繰り)

Karakuri (絡繰り) is a new system aimed at revolutionizing the way we manage Android devices. The name "Karakuri" refers to the ancient Japanese word for a mechanical system or mechanism, typically intricate and selfoperating. In this context, it symbolizes the intricate connections between devices and the automation of actions.

**Karakuri** system integrates Artificial Intelligence (AI) to automate and optimize all possible actions a user might perform on their device. It builds on a Kotlin foundation, enhanced by the flexibility of Smalltalk, and it will:

- Maximize the use of GPU for AI tasks, enabling advanced learning models and real-time adaptations.
- Fine-tune models in real-time based on user input and environmental factors.
- Utilize environmental awareness, understanding the surroundings of the device and optimizing based on external data.
- Seamlessly replicate itself across devices and systems, making it easy to scale across multiple platforms.
- When two Karakuri-enabled devices are placed together, they will combine their resources, exponentially increasing capabilities.

This system will introduce a 3D interface with dynamic dropdown menus, providing a unique user experience unlike any traditional Android manager.

# 2 Symbolism and Etymology

Karakuri (絡繰り) is written using the kanji:

- 絡 (らく) meaning "entwined" or "connected."
- 繰 (くり) meaning "to operate" or "to pull."

In the context of our system, it represents the seamless connections and the autonomous operation of multiple devices. Below is the Hiragana representation:

#### Karakuri: からくり

This reflects the mechanical and connected nature of the system, where every component interacts autonomously, extending beyond simple user interactions into AI-driven decision-making and collaboration.

## **3** Use-Case Scenarios

Imagine two devices, both running Karakuri, placed next to each other. The devices immediately recognize each other and begin sharing resources, enabling GPU power from one device to support AI processes on the other. This leads to:

- Faster AI model training and execution.
- Dynamic load balancing based on environmental awareness.
- Extended battery life through shared energy optimization.

The system redefines how Android devices can manage resources and interact with each other, creating a network of devices that can replicate and extend each other's capabilities.