Project CHANDRA

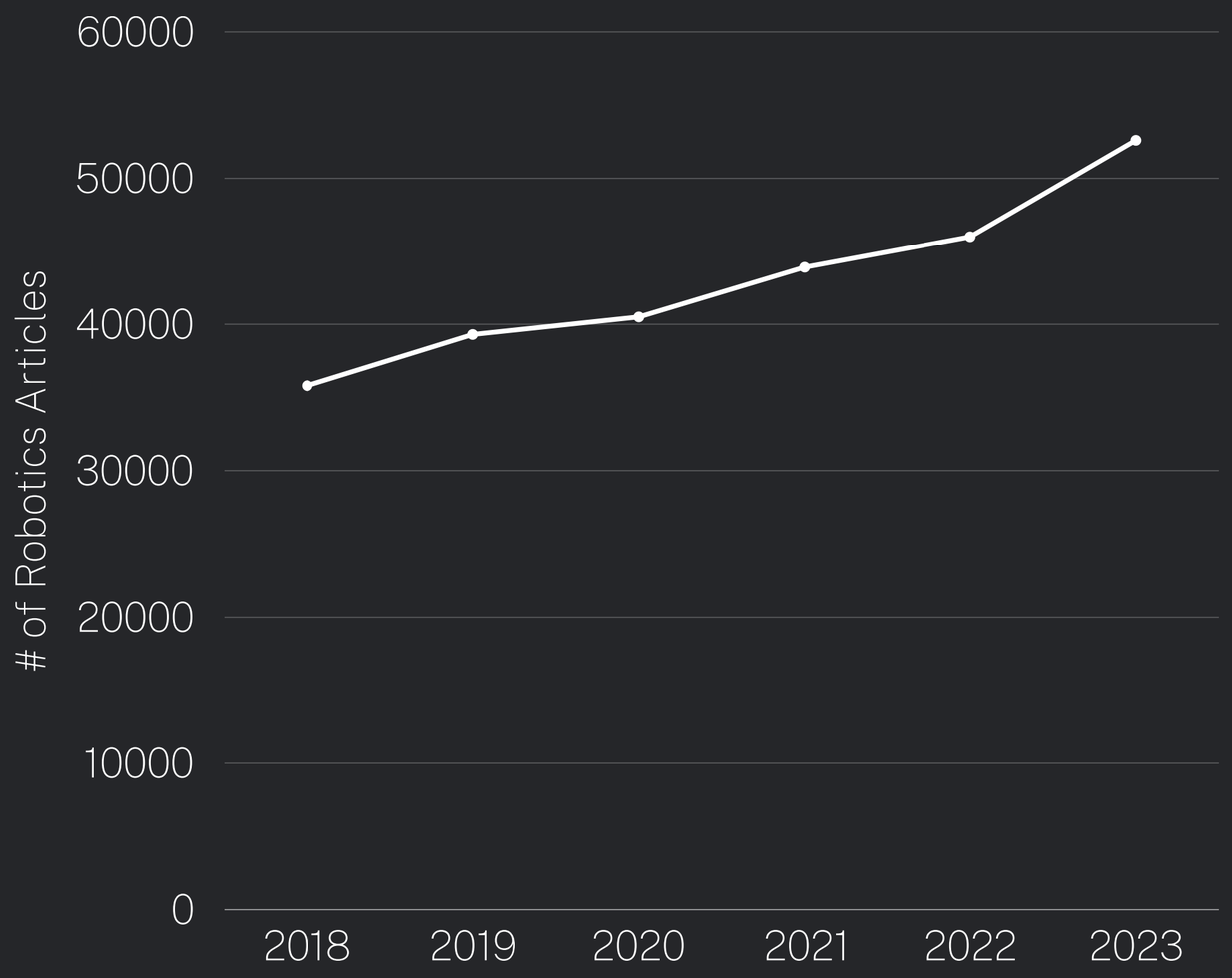
BRIDGING THE GAP BETWEEN HUMAN & ROBOT INTERACTION

Interacting with robots is very difficult.

Every roboticist will tell you this...

More research every year...

still not smart or affordable enough to have robots in the common household.



We want to give robots a voice interface.

— Project TLDR

Our goals

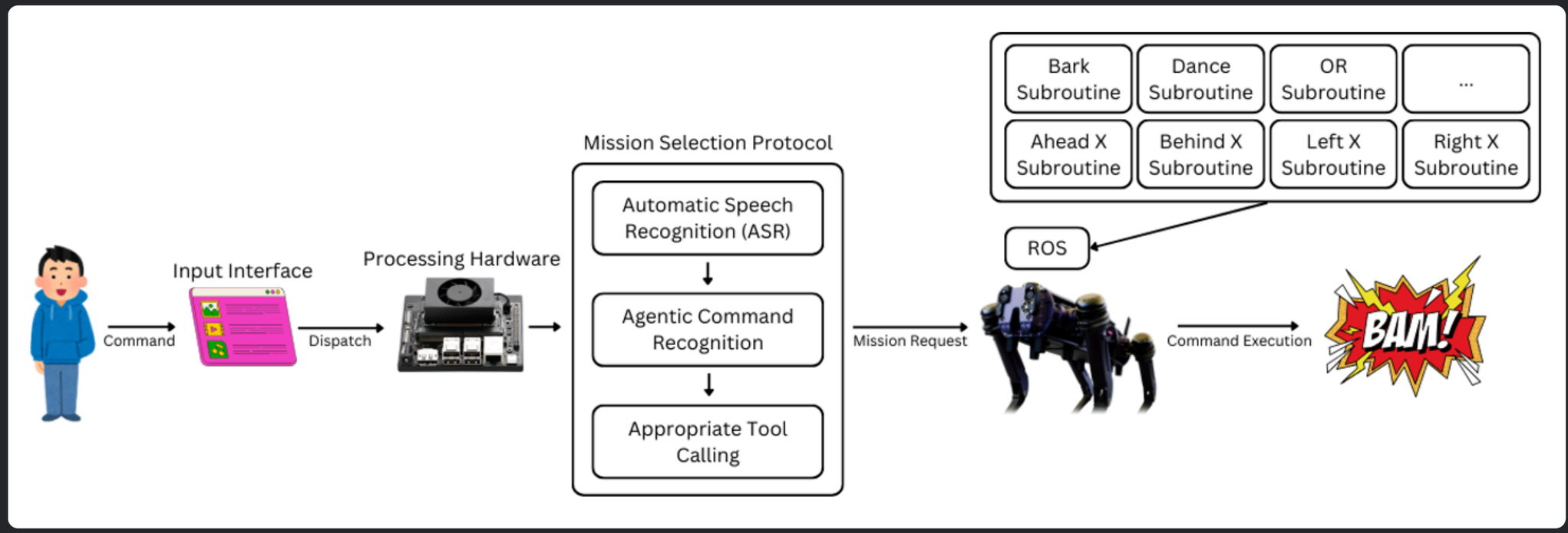
Cutting-edge

We want to use the latest advanced in voice detection and natural language technologies.

Seamless

We want interactions to be natural, fast and seamless.

Our solution



Main benefits

It’s Intuitive

Simply saying things in natural language is more intuitive than any tools short of brain interfaces.

It’s Efficient

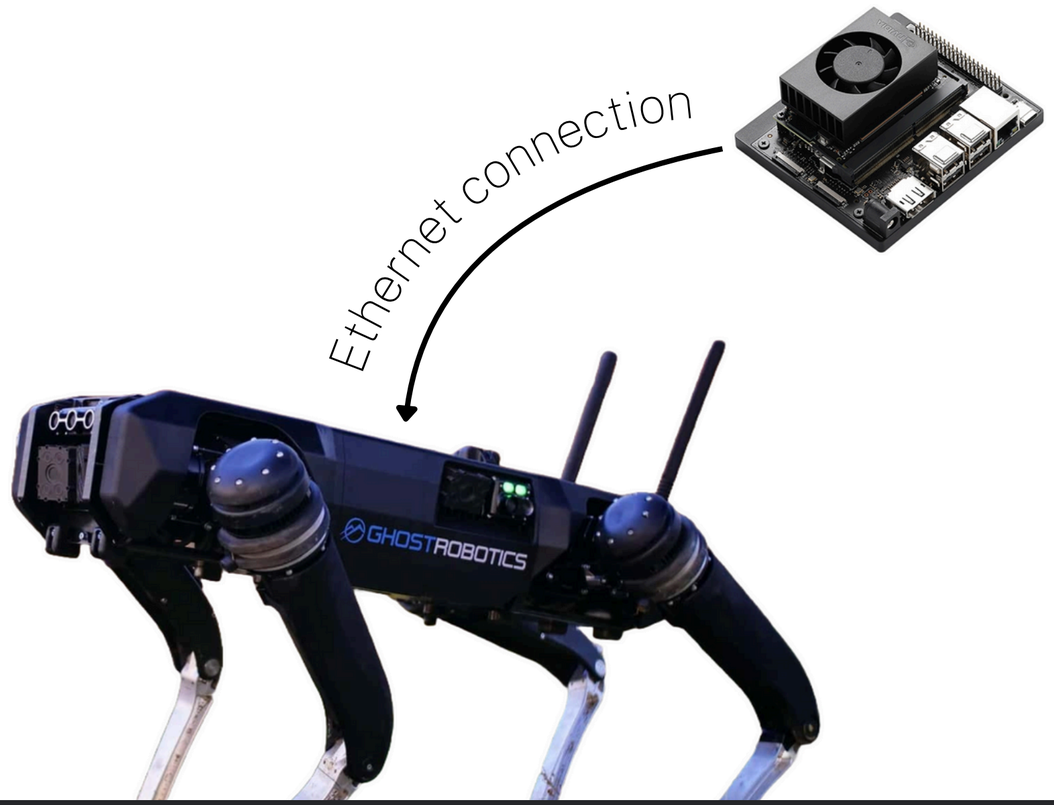
Talking is very efficient and require less attention than manual control schemes.

It’s Accessible

You don’t need to have technical knowledge to talk.

Let’s get technical…

Our non-demo tech stack.



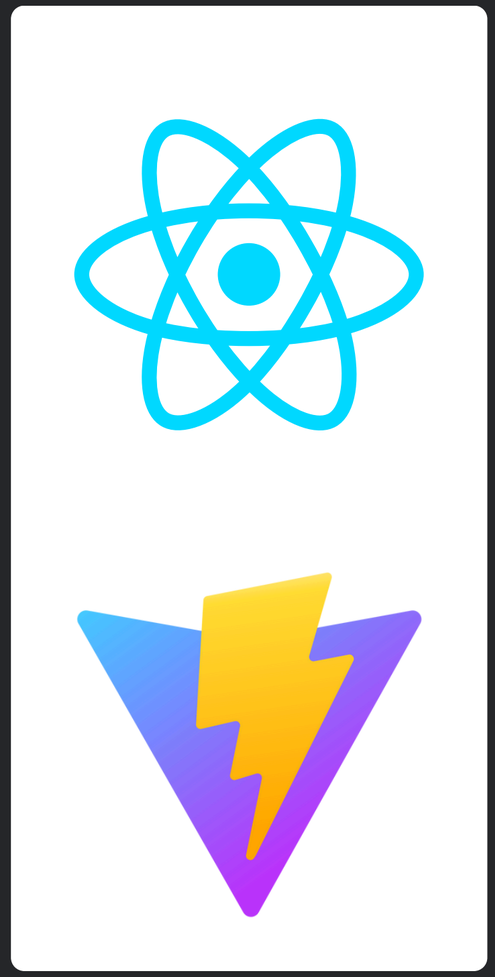
ROS 2 reigns. Everything is a node.

OpenAI's Whisper is the best STT.

smolagents is good for LLM agents.

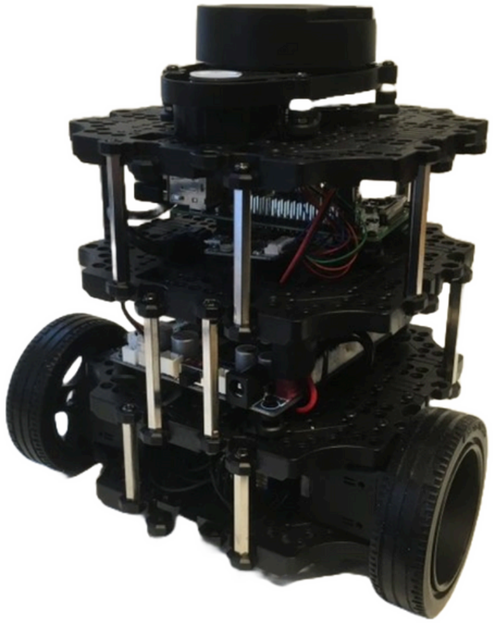
Llama is a good local LLM family.

Our demo tech stack.



Robot (simulators) we tested on.

Turtlebot3 Burger



Mangdang Minipupper

GhostRobotics V60

Let’s look at some stats

Here’s what our system can achieve.

1-2s latency

Basically real-time inference of speech.

98% accuracy

Near-perfect intent parsing from agent.

Demo time!