Groq + Innate:
Bringing AI-powered Robots to Everyone

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○ innate | **Making it simple to build smart robots**

The Challenge

Despite their ubiquity in popular culture, seeing a robot in a home environment is still a rare occurrence. Robot enthusiasts, who enjoy building and programming machines of all shapes and sizes, are changing that one bot at a time. However, when it comes to integrating the latest AI breakthroughs into their robots they face some challenges.

They have to procure and assemble their hardware, as always. Then they need to create an AI solution that directs the robot to actually do things, leveraging the latest large language models (LLMs) to understand its surroundings, solve problems, and move in physical space to achieve whatever it is supposed to achieve. Taking on this challenge requires a lot of time, and may be beyond the capabilities of many hobbyists. For them, the world of AI-driven robotics remains out of reach.

The Solution

Innate is a Silicon Valley-based startup making it easy to build very smart robots very quickly. By using a variety of LLMs and visual language models, Innate's platform enables engineers and hobbyists to quickly train a robot to do specific tasks. Innate's platform integrates visual language models, traditional computer vision models, and physical manipulation models trained by Innate and running locally on the robot. It currently uses Meta's Llama 3 to power its primary reasoning engine. This gives robots running on the platform a built-in – one might say innate – ability to understand and interpret its surroundings.

Innate is working with Groq as its inference partner because of the speed and easy access to the latest models Groq offers. Innate's multi-agent system requires streamlined data flow between models, each of which has different responsibilities—navigation, decision making, task prioritization, etc. Groq and its superior performance enables this flow to happen instantly, so Innate's robots can act at human speed.

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```python
from innate import Directive

class ServingDirective(Directive):
    def get_primitives(self):
        return ["grab_glass", "serve_glass"]

    def get_prompt(self) -> str:
        return """You are a helpful robot called
Maurice that serves drinks to people."""
```

Groq compiles the latest leading LLMs and makes them available via Groq Cloud™, often within a few hours of their release. This gives clients like Innate the opportunity to access the newest models right away. That means robots running on Innate's platform can instantly get more powerful whenever a new model is added. The robots get smarter, with use, on their own.

This sophisticated software platform is built into Innate's own robot, Maurice, a product currently in beta that will be the starting point for customers. They will be able to teach Maurice new skills such as picking up after their kids and pets, waking them up with a gentle tap on the shoulder, or finding and bringing objects. As a result, engineers and hobbyists can have a robot customized for their space and tasks in a matter of a couple of hours.

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The Opportunity

Much like the early days of personal computers in the 1970s were characterized by hobbyists building computers, today's robot enthusiasts have to piece together their creations from scratch. By democratizing access to powerful AI models for the purposes of creating robots, Innate and Groq hope to catalyze a future where it's easy for regular people to program their own robots to handle tasks around their home and be their personal assistant.

Want your robot to help you take pictures at events and games? Want your robot to feed your cat according to her picky schedule? Want your robot to understand and interact with your world in real time? Innate, Powered by Groq, will make it easy in real-time.