

How LeRobot Hackathon Winners Built AI-Robots With NVIDIA Isaac GR00T



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Join us for a special livestream featuring two winning teams from the LeRobot Worldwide Hackathon: Spice Terminator and LeDetective DaVinci. See how these teams used GR00T N1.5 and the SO-101 robot to build AI-powered systems that understand natural language and perform complex real-world tasks. From robotic cleaning driven by vision-language-action models to AI agents solving mysteries like a detective, this session is full of innovation, creativity, and real-world applications of physical AI.

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This NVIDIA Omniverse livestream showcases two LeRobot Hackathon winning teams. Teams Spice Terminator and LeDetective DaVinci demonstrate AI-powered robots performing complex tasks. They detail their innovative solutions using NVIDIA Isaac GR00T and the SO-101 robot arm, from initial concept to final demo.



SIGGRAPH 2025
Vancouver+ 10-14 August

NVIDIA at SIGGRAPH 2025

August 10-14

Vancouver Convention Centre



Edmar | NVIDIA



Strainflow | NVIDIA



Sohaib | Accenture



Pulkit Gera | Flawless AI



Sanan | University College London



Devang | Accenture



LeDetective DaVinci

Devang Darode
Muhammad Sohaib Arshid
Artur Habuda
Shukrullo Nazirjonov
Philipp Schmidt

Most Common Barriers For Students, Hobbyist And Starters

- Getting hardware is... well, hard
- Lack of reliable data sets
- Training AI models for robots
- Lack of Community and Collaboration For an individual
- Programming robots isn't like coding software

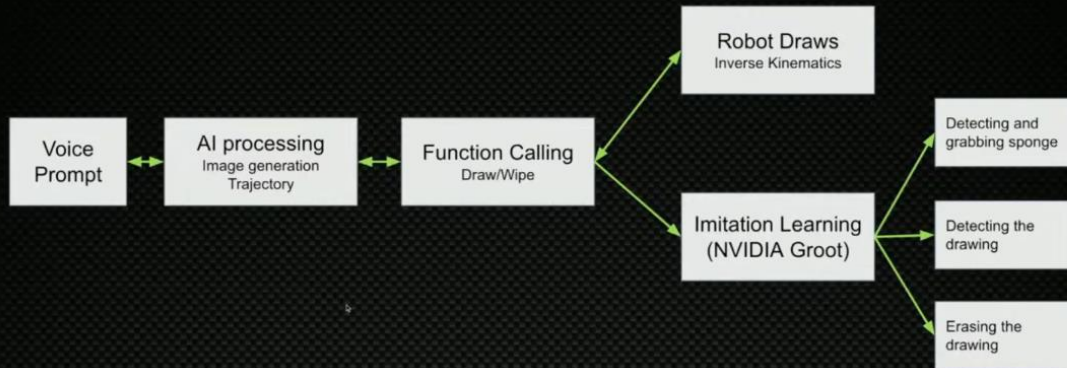
Today we will see how these barrier are being strategically brought down

LeRobot Worldwide Hackathon

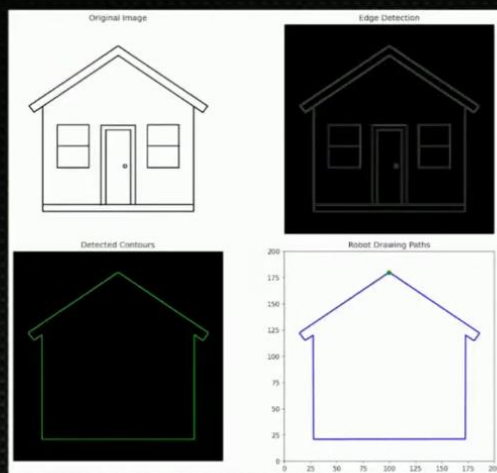


- Two days, 3300 participants, 100+ locations across globe
- Form team with strangers
- Generate creative ideas
- Design solutions, implement, and debug
- Present working demo and pitch the idea to the panel

Project Idea



Drawing Trajectory



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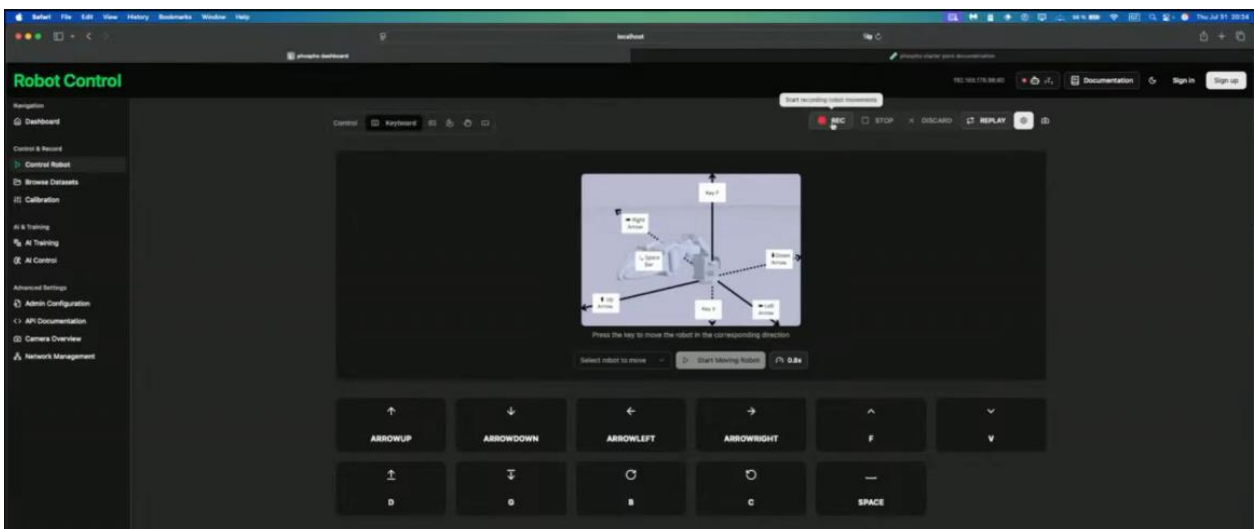
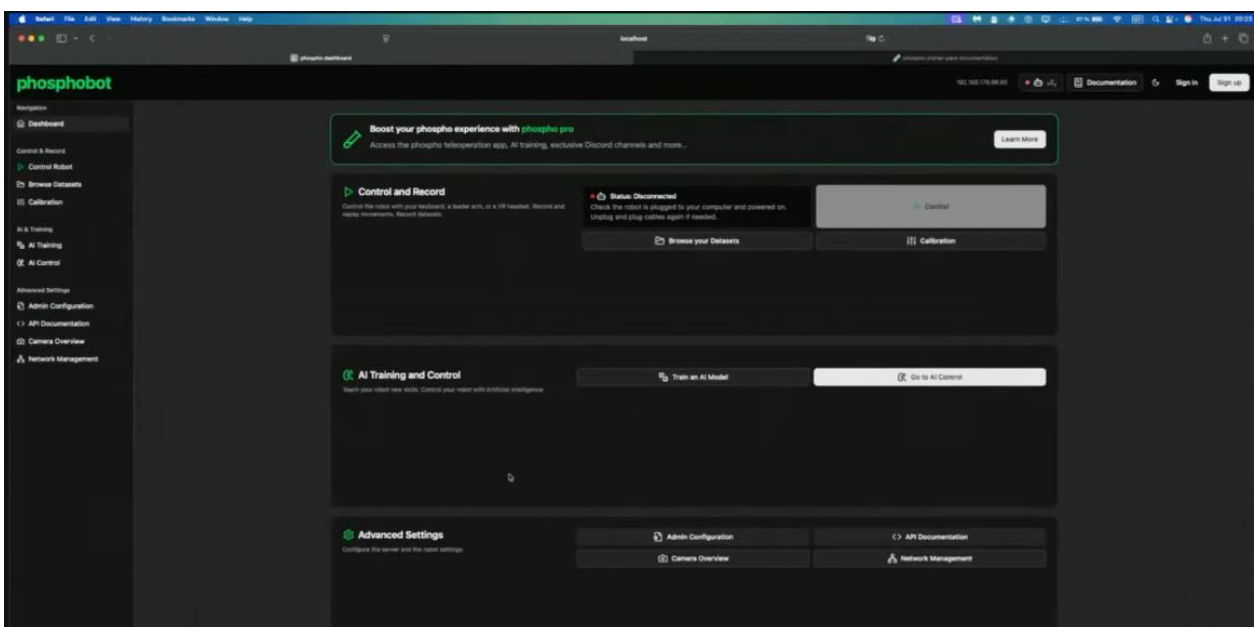
HuggingFace LeRobot S0-101 ARM

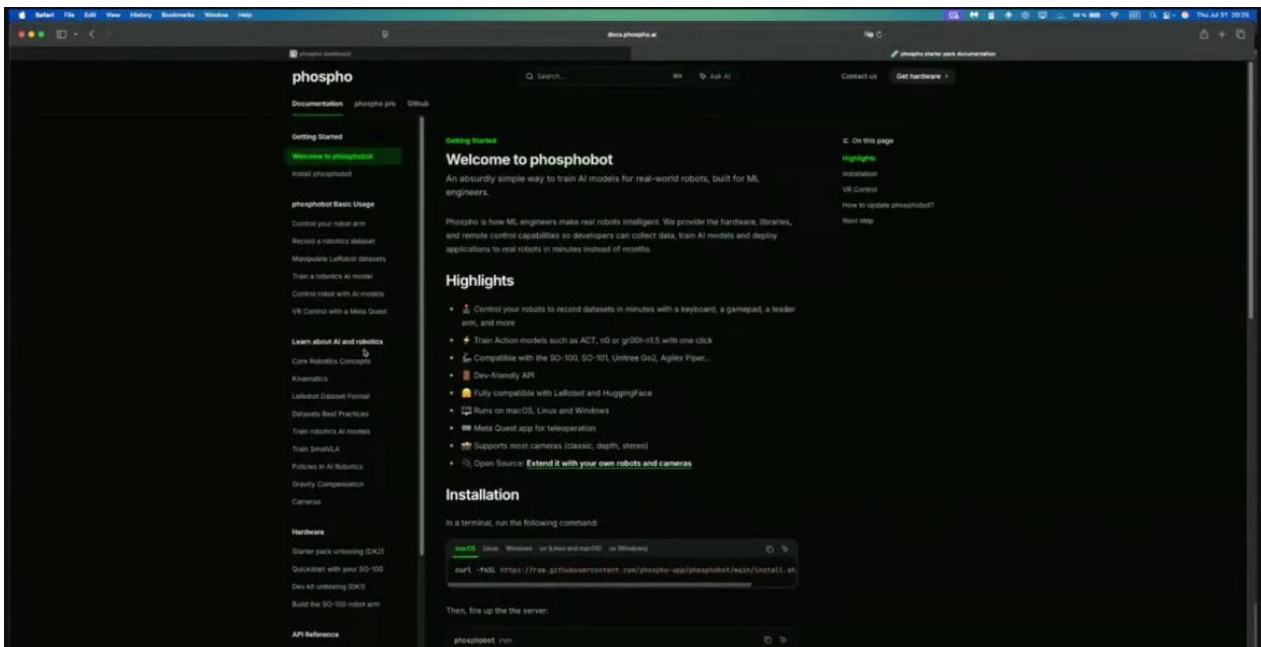
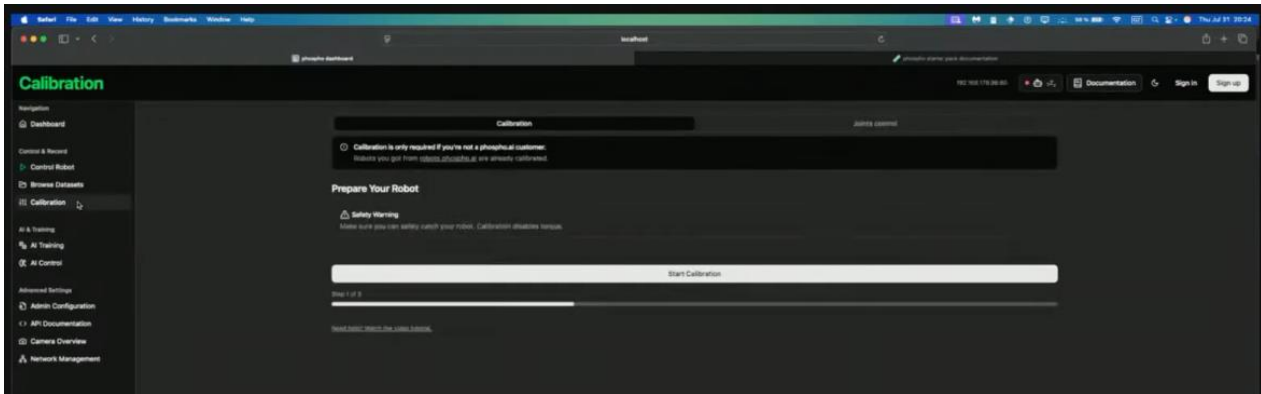
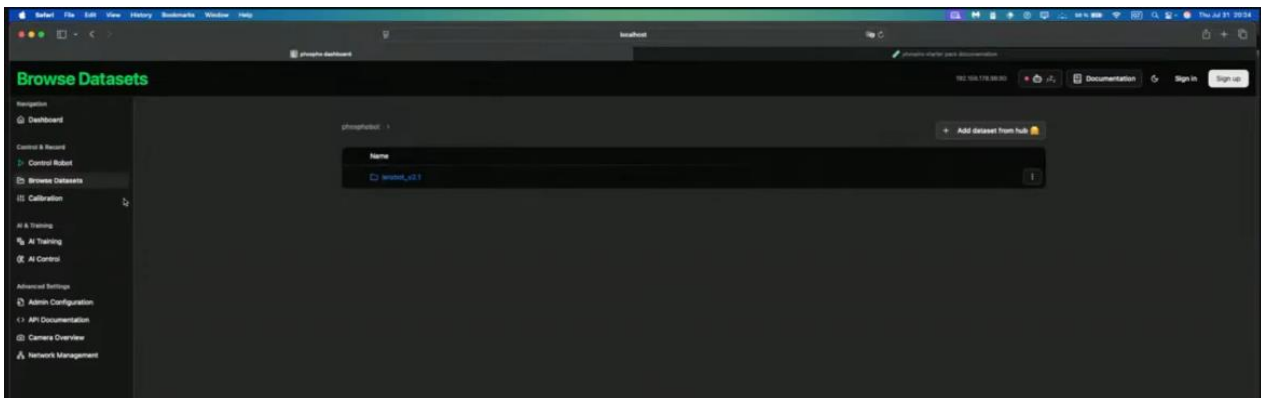
- Open source
- Affordable
- Minimal barrier to entry
- Suitable for Rapid prototyping
- Community (Hugging Face ecosystem)



Phosphobot

- Open Source
- Control your robots to record datasets in minutes
- Train Action models such as ACT, $\pi 0$ or gr00t-n1.5 with one click
- Compatible with the SO-100, SO-101 and others
- Dev-Friendly API
- Fully compatible with LeRobot and HuggingFace





Data Example (LeRobot Data Visualizer)



NVIDIA GROOT-N1-2B (Imitation Learning)

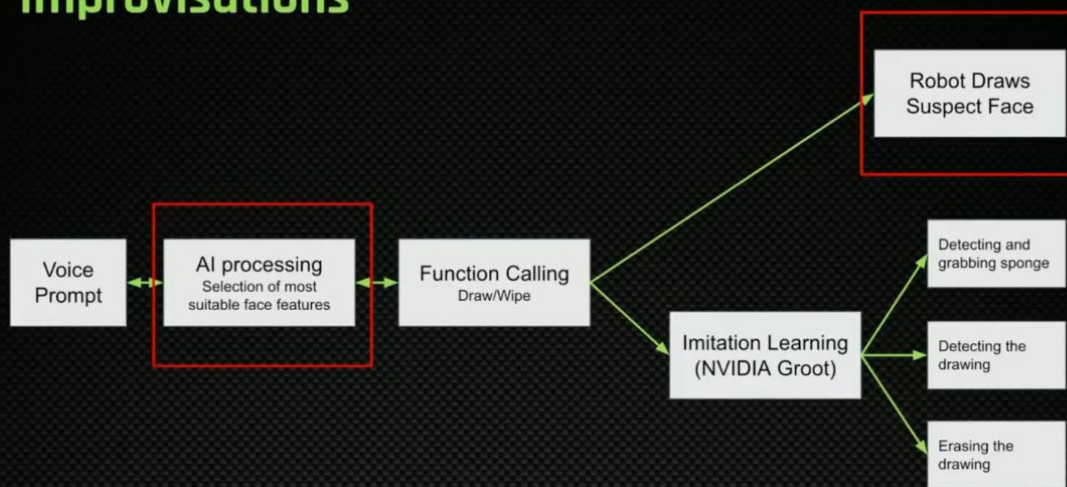
- Open Source Robot Foundation Model
- GROOT N1 can easily generalize across common tasks
- Few episodes of data are enough to train a reasonably good imitation model
- ~120 samples over two days for training
- Trained for 10 epochs

```

Succeeded arturaah-groot-wipe3... gr00t
epochs: 10
data_dir: data/
batch_size: 49
output_dir: outputs/
learning_rate: 0.0001
train_test_split: 1
path_to_groot_repo: .

Succeeded arturaah-groot-wipe2... gr00t
epochs: 10
data_dir: data/
batch_size: 49
output_dir: outputs/
learning_rate: 0.0001
train_test_split: 1
path_to_groot_repo: .
    
```

Improvisations



And The Result...?

LeDetective DaVinci

I couldn't see him well but he was running really fast. It looked as he knew exactly where to go after stealing my wallet as if he was very familiar with the streets in München. He was also big and tall (maybe bigfoot idk)

And The Result...?



LeDetective knows exactly how the suspect looks

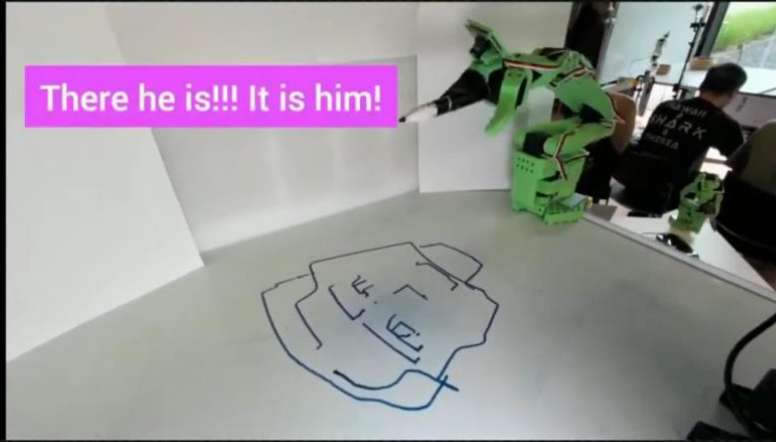
And The Result...?



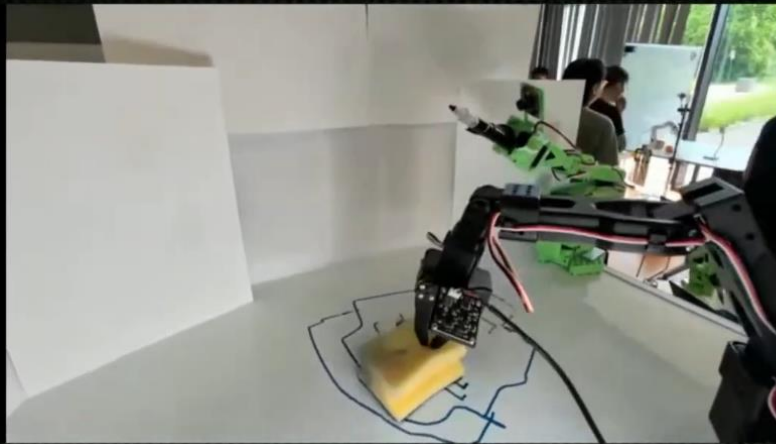
He is always alert, he has big eyes

And The Result...?

There he is!!! It is him!



And The Result...?

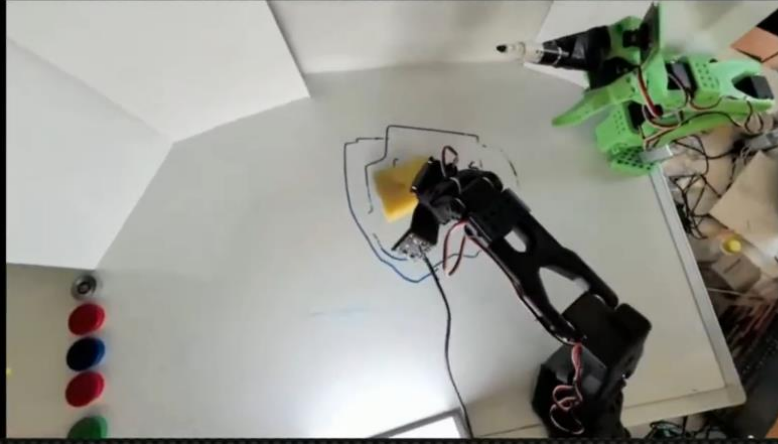


And The Result...?

Powered by gr00t



And The Result...?



The team

