

ROSCon FR&DE 2025

WORKSHOPS

Workshop Title	EmbodiedAgents - a fully loaded framework for creating interactive physical agents
Name of principal instructor	Abdullah Haroon Rasheed (Automatika Robotics - Inria)
Number of supplementary instructors	0
Maximum of participants	30
Language	English
Workshop duration	2h
Material used	No required material. Demo will be run on the presenter' s laptop and an Nvidia Jetson development board. Instructions for installing the software will be shared with the audience ahead of the workshop so they can follow along during the session. * laptop and an Nvidia Jetson development board if one wants to replicate the setup (not required)
Skills required for participants	~ Begginers The workshop is suitable for anyone working on deploying ML models (vision, STT, TTS, multimodal LLMs, etc.) on their robots for space understanding and decision making in an agentic framework. Although EmbodiedAgents is built on ROS2, it does not require any advanced knowledge of ROS as it has a very Pythonic, intuitive interface.

Brief description	EmbodiedAgents, is an open-source fully loaded framework, written in pure ROS2, for creating interactive physical agents that can understand, remember, and act upon contextual information from their environment. Designed for real-world deployment, it offers a clean Python API to integrate local or cloud-based multimodal LLMs and transformer models into robotic systems. It features a modular semantic memory system using vector databases and semantic routing for flexible, agentic reasoning—without using any bulky GenAI frameworks. The workshop showcases the core software features and includes a hands-on session to build a complete agent graph for an embodied AI system that can route a single input through multiple processing pathways, have conversations with the user, follow commands in natural language, reconfigure its own components based on its environment and goals etc. - Source Code: https://github.com/automatika-robotics/embodied-agents - Documentation: https://automatika-robotics.github.io/embodied-agents/
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