

FRIDA robot created by Tec students recognized in Brazil



The RoBorregos team stood out at RoboCup@Home with their home assistance robot; the project achieved sixth place globally.

20/01/2026

Beatriz Marún

Erick Ramírez

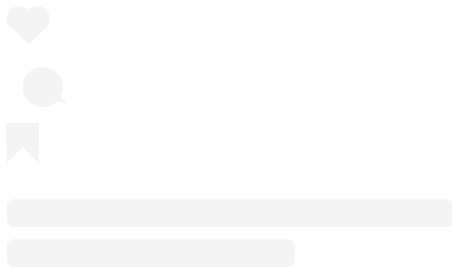
FRIDA, the robot developed by [Tec's RoBorregos](#) team, achieved sixth place globally at the international **RoboCup@Home 2025** competition.

They were also recognized as the best team from the Americas during the event held in **Salvador de Bahia, Brazil**.

"Working with such talented and passionate people, learning from others, and also teaching is a very nice way to build community", shared **Alejandra Coeto**, a Computer Engineering student.



[View this post on Instagram](#)



The main aim of the competition is to develop **autonomous service robots** that are capable of interacting with people and manipulating objects with precision.

FRIDA (Friendly Robotic Interactive Domestic Assistant) is the result of collaboration between students on different courses at the [School of Engineering and Sciences](#).

Since its inception, they have incorporated aspects of mechanics, electronics, programming, **Human Robot Interaction (HRI)**, and artificial intelligence into the robot.

The results of the competition were documented and awards presented at the [**Mexican International Conference on Artificial Intelligence \(MICA\) 2025**](#), the most important AI forum in Mexico.

It is organized by the Mexican Society for Artificial Intelligence and focuses on the exchange of scientific knowledge.

***“One of the changes we want to develop is a one-way base”.-
Alejandro González.***

Implementing technical improvements

During the event, FRIDA performed **mobility** tests, object manipulation with the arm’s gripper, and real-time command processing, without depending on an external internet connection.

“Last year, many things were done online due to computer limitations. Now, with the improvements we’ve integrated, we can run everything locally, and that made all the difference”, said **Diego Martínez**, an Innovation and Development Engineering student.

The FRIDA robot developed by RoBorregos from Tec de Monterrey achieved sixth place at RoboCup@Home 2025. Photo: Erick Ramírez



Upgrades made to the robot included the optimization of task planning through large language models (LLMs).

This allowed for a significant reduction in interpretation and response time for complex commands, he said.

“The international competition opens the door to further opportunities, from research to implementing new technologies”, explained **Gerardo Fregoso**, a Robotics and Intelligent Systems Engineering student.

Optimizing execution processes

The members of RoBorregos mentioned that they are always working on FRIDA to optimize real-time manipulation and processing of commands.

They explained that all the software runs locally, **without depending on an external internet connection**, which gives them greater autonomy and reliability.

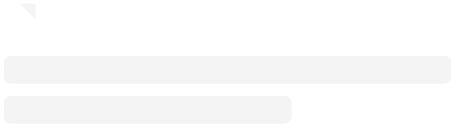
“One of the changes we want to develop is a one-way base, because the differential one that we have now has problems in tight and dynamic environments”, said **Alejandro González**, a Mechatronics Engineering student.

They were supported by **Professor Erick Ramírez** for the RoboCup@Home 2025 competition.



[View this post on Instagram](#)





About RoBorregos

Formed in **2015** by students from the [Monterrey campus](#), RoBorregos is a robotics team focused on competing in **national and international autonomous robotics and technological solutions tournaments**.

Currently, the team includes **more than 40 students**.

Since its formation, the group has achieved the following distinctions:

- *1st place: "LARC IEEE Open Challenge" 2018 (João Pessoa, Brazil)*
- *3rd place: "Rescue Maze Jr." 2017. The first time that Mexico ranked in the top 3. (Nagoya, Japan)*
- *3rd place: "LARC IEEE Open Challenge" 2017 (Brazil)*
- *2nd place: "LARC IEEE Open Challenge" 2016 (Recife, Brazil)*
- *3rd place: "Super Team" 2015 in collaboration with the German team at RoboCup 2015 (Hefei, China)*
- *7th place: "Rescue Maze Jr" 2015 (Hefei, China)*

READ MORE:



Before implementing artificial intelligence (AI), your company should organize data.



conecta.tec.mx • Gerardo Villarreal • Jan 20