

Tec student innovation: Forklifts with artificial intelligence



A multidisciplinary group of students from **Tec de Monterrey's campus in Mexico City** have joined together to form NATMA, a team of **technophiles** that has created a fleet of **smart forklifts**.

These smart forklifts are called "**Autonomous Pick-up Machines**" (**APMs**), which can communicate each other to **work as a single unit**, and thus transport goods from one place to another **without the need for a single operator**.

*"APMs **optimize the processes carried out in warehouses** and can increase a company's productivity in a constant and scalable way.*



width="900" loading="lazy">

*“We want to break the automation paradigm through this project and develop **Artificial Intelligence** with the ability to learn from everyday use and constantly improve itself,”* shared the team members.

One of the advantages offered by this product is the **reduction of time** spent on warehouse processes.

“We came up with the idea of taking humanity’s new dream of creating smart robots, moving from fiction and academia to something real, tangible, and useful. It had to be capable of providing a service, and not just providing entertainment.

*“We saw that industry is flirting with these smart systems, but they have not been able to create a truly conscious machine, and that’s where **we saw an opportunity**,”* they added.

The challenge: finding funding

The Tec students explained that working with **artificial intelligence** has been a challenge, since this technology lags behind in Mexico in comparison with other countries, and this has made it difficult to get companies onboard with **funding**.

“Artificial intelligence, while strong and hugely important, is invisible in Mexico.

“In the rest of the world, a large part of companies’ budgets is spent on this type of research. However, in Mexico, it is not only not given any importance, but people don’t even know that it exists, so its relevance goes unnoticed.

“Finding funding for a project like this is difficult. Research of any kind is expensive. Then there is the fact that it is a completely new field, and a race against the clock as companies from all over the world try to develop the technology before their competitors,” they said.

What’s more, the team has had to **teach itself** so as to enrich its **research and products**.



width="900" loading="lazy">

Their goal: to develop more technology using artificial intelligence

Using artificial intelligence to **improve peoples’ quality of life** is the **NATMA team’s** goal, and its fleet of forklifts is just the beginning for the Tec students.

“Artificial intelligence can improve the quality of life around the world, but it takes extraordinary people to get it to the point where it can walk on its own, and that is where we want to be.

*“We are using artificial intelligence as a tool to achieve absolute autonomy in electro-mobility, specifically in logistics. In turn, we want to be able to accelerate Mexico’s transition to **smart automation** and demonstrate that the country has this capacity,” they explained.*

Their commitment: INCmty

The NATMA team received a pass to the [INCmty](#) entrepreneurship festival at which they will present their APM product in order to grow the company.

“The team is currently developing the APM. We have multiple professional disciplines, each of which is responsible for different parts of the product. We already have an initial prototype which we have shared in meetings with prospects. What follows is to finish the prototype and assemble it.

“What we need to do now is finish the APM and arrive at INCmty with an MVP (Minimum Viable Product) that brings us closer to being visible in Mexico and around the world.”

NATMA consists of: Edgar Cortés, Daniela Chipuli, César Hernández, Ángel González, Pablo Barajas, Marco Palacios, Alfredo Zhu, Sebastián Fernández, Víctor Velázquez, Paola Cuenca, and Montserrat Escalona, as well as Cristina Pantoja, Diana Cabello, Vanessa Castro, Kevin Cruz, Madeline Rojas, María del Ángel Mendoza, and Paulina Gutiérrez.

YOU'LL DEFINITELY WANT TO READ THIS TOO:

<https://tec.mx/en/news/mexico-city/research/tec-researchers-working-project-save-power-home>