

## Brazil Holds Fair to Promote Robots in Industry and Schools

Contributed by Débora Rubin  
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The International Robotics and Artificial Intelligence Fair, which will start tomorrow, April 11, at Imigrantes Convention Center, in the southeastern Brazilian city of São Paulo, has two main objectives: showing the industry in Brazil that robotics are more accessible and necessary than one imagines, and attracting students and stimulate people's curiosity in order to promote the study of science and technology in Brazil.

Thus, the Fair, currently in its second edition, will be divided into two spaces: one for industry members only, and another for leisure and entertainment, which will remain open to the general public.

"We are living the robotics revolution. It is all around, in the industry, in medicine and in everyday life. We want to awaken Brazilians to this new reality," said Eduardo Branco, director of the event.

A total of 60 exhibitors will participate, including companies and educational institutions. Approximately 50,000 people are expected to attend. Last year, the Fair had 25,000 visitors.

"The first edition was a rehearsal, even though it enjoyed wide acceptance. This year, we will have more of a notion of the turnover at fair, business-wise," Branco explains.

The Fair, which is turned to the industry, will count on the participation of robotics companies such as Comau, Didatech, and Kuka Roboter. The former will introduce its new generation of Comau (CG4) robots, which use wireless programmers.

One of the highlights by Kuka Roboter is their KR16 robot. During the event, the robot will make a miniature automobile. The Motoman Robótica Brazil company, which belongs to the Yaskawa group, will present products such as the EA1400N and EA1900N robots, developed exclusively for soldering purposes.

The entertainment section will feature lots of fun for robotics students and fans. The same companies that will introduce new products to the industrial sector will present, in the adjoining pavilion, their entertainment robots. One of them is the Scara robot, by Kuka Roboter, which will play a game of checkers against the KR5 robot.

The Marc Produções company will introduce its RoboCar, a car that transforms into a six-meter-tall robot. Among the international highlights is the Hug T-Shirt, a T-shirt that "hugs" people. Software embedded in the T-shirt is activated by a cellular telephone via bluetooth technology.

The event will also have room for education. High school and college students will engage in several competitions. One of them is a robot-assembly competition using kits provided by Lego (toy manufacturer). In all, 632 students from 77 schools will participate, divided into teams that will contend for the best creations.

Another 100 college students from 12 different institutions will attend the Fair. On an hourly basis, teams from FEI Mauá and UNESP-Bauru colleges will play football games in the Very Small category, for cube robots of up to 7.5 centimeters.

The player robots were designed by Computer Science and Electric Engineering students at FEI, and are already a classic at robotics events. The FEI team is a back-to-back champion in the Very Small Robot Soccer category of the IEEE Brazilian Robots Competition.

Finally, Fundação Santo André is going to present its Sumo for Robots, created by Mechanical Engineering students at the institution. The robot that manages to "push" its opponent outside a 2-meter-diameter arena wins.

FEI will also introduce other projects by its students, such as Mike, the emotional robot, developed by senior students in the Electrical Engineering course towards the end of 2006. The robot "expresses" its emotions through the colors of its eyes: red is for anger, green is for happiness, and orange is for sadness.

According to Flávio Tonidandel, coordinator at the Department of Computer Science at FEI, there are currently slightly more than 20 students involved with robotics at the institution - including graduate and master's students.

It does not sound like much, but the figure has been increasing in recent years. "The engineering has advanced, as has the computing. What will change in those two fields from now on is the use of Artificial Intelligence," says the teacher.

To that extent, FEI is investing in different areas of robotics, from the medical field to intelligent residential automation. The institution even has a specific master's course in industrial automation.

The reason for that, according to Tonidandel, is that there still is a vacuum between what is created in the universities and what is used in industries.

"Brazilian businessmen are still unaware of robotics. To them, it is still just fun for college kids," he said. "But that is already changing. Factory robots are becoming increasingly intelligent. Robotics is not the future anymore. It is the present."

Service:

International Robotics and Artificial Intelligence Fair

From April 11 to 15, from 1 pm to 9 pm

Tickets: 20,00 reais (approximately US\$ 10,00)

Place: Imigrantes Convention Center - Rodovia dos Imigrantes km 1.5

[www.roboticaexpo.com.br](http://www.roboticaexpo.com.br)

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