



News about RoboParty'2022 **Prof. Fernando Ribeiro, Univ. of Minho, Portugal**

The 14th edition of RoboParty, which took place from the 7th to the 9th of April at the University of Minho in Guimarães, Portugal, was another success. This event is organized by the University of Minho (Laboratory of Automation and Robotics) and by botnroll.com (spin-off of the University of Minho). This edition had more than 400 young people with more than 100 teams registered, with all robots built and fully operational, with great joy and good mood. This was the first fully presential event for a very long time.

RoboParty is a pedagogical event that brings together teams of 4 people, for 3 days and two nights (bring your sleeping bag) to teach how to build autonomous mobile robots in a simple and fun way, guided by qualified professionals. Initially, a short training is given (to learn how to get started in Electronics, robot programming, and mechanical engineering), then a robotic kit developed by botnroll.com and University of Minho is given, to be assembled by the participants (mechanics, electronics, and programming) and at the end of the event it belongs to the team. All teams have a tutor with robotic knowledge to help in the construction and programming of the robot. Running in parallel there are other recreational activities such as sports, music, internet, games, parties, etc. Each participant brings his sleeping bag and stay there throughout the event. The RoboParty is identical to a LANParty and also works 24h / 24h but has a pedagogical and educational purpose. Participants will also be given the chance to learn the rules of most national and international robotic competitions so that they can participate.

The event had a first training on “control board construction and electronic components soldering”, followed by the hand-over of electronic/mechanical components for the construction of the Arduino compatible Kit, [Bot'n Roll ONE A](#), developed by botnroll.com. Afterwards, the participants started building the robot and in a few hours, it was already assembled by most of the teams. The participants could, in parallel, enjoy some recreational and sports activities such as table tennis tournament, basketball, traditional games, chess tournament, etc.

After dinner there was an entertainment activity, with the two tunas (traditional University musical groups). Participants continued to work at night and a good percentage stayed working all night, such was the desire to see the robot built. Those who gave in to tiredness rested in a sleeping bag and on mattresses made available for that purpose on the spot, in an area of the pavilion called RoboHotel.

On the second day, there was training on programming “Arduino IDE” robots and then the participants started to program their Bot'n Roll ONE A. This language was very much appreciated and easily learned. Teachers enrolled in the accredited training attended the CAD Design and 3D printing class, and also attended the training on Graphical Robot Simulation with CoppeliaSim software. There was even time to play basketball, and in traditional games.

In the afternoon, the robots were already programmed, and there were two robotic challenges “Obstacles” and “Race of Champions”. Some participants still managed to stay awake during the second night, although in smaller numbers.

On the third day morning, the surprise challenge “RoboParty Fun Challenge” took place, where each robot had to push dozens of table tennis balls to the opponent's court, this event depending not only on the robot but also on the participant's dexterity.

After lunch, the Dance challenge began, with a large audience attending, and where practically all the teams participated, which demonstrates the degree of success in the construction of the robots. Here the participants showed their imagination and created beautiful robots that danced to the beat of the music. A jury composed of eight elements gave its classification.

For more information: <http://www.roboparty.org>



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Robot built at RoboParty (Bot'n Roll ONE A)



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