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By Richard Lai

Robonica Roboni-i programmable robot toy review

Life became duller ever since FedEx took away our last annoying little robot, so we got our hands on a new but less chatty plastic companion -- say hi to Robonica's Roboni-i programmable robot. Since its last Engadget appearance we've seen a drastic price drop from the original \$299.95 to \$159.95 at Hammacher Schlemmer, but the robot is no less



awesome -- those unique wheels alone deliver plenty of coolness already, not to mention the bunch of peculiar accessories in the box for games and even interaction with other fellow Roboni-is. Read on to find out if this bot's a keeper.

Build quality

The Roboni-i targets an audience aged above 12 (although younger kids should still enjoy the basics of it), and given the high price, any sane person would have equally

high expectations for it. Fortunately, the kit gave a good first impression -- all the parts felt sturdy and were well cut. The robot turned out to be smaller than we anticipated, which is good since it interacts best indoors with its IR accessories. Don't let the body size fool you, though, as we had to install six AA batteries in it (rechargeables would be a good idea here). Similarly, the base station requires two AA batteries to power its various IR emitters and the chunky remote controller -- which fit nicely in our hands -- takes four.

The robot has several interaction and indication features on-board: two IR emitters and a touch sensor on the front of body, a few LEDs on the chest, more IR emitters and receivers on its head, and a power switch, USB port and another touch sensor at the back. Flip the bot over and you'll find a frame for catching the included ball. The rubberized wheels are driven by one gear each -- as seen through the semi-transparent covers -- but we couldn't help

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noticing their side-way shakiness when held at the top. This didn't seem to affect the robot's mobility, though, as the bottom part was much more secure.

Functionality and accessories

While the robot's marketed as a programmable device, there's no need to plug it into a computer before its first drive -- great news for jumpy kids. Once switched on, the remote control and the robot will establish connection via RF (not IR -- sweet). The robot's wheels are independently controlled by the two up / down click buttons, making it very easy to travel in a straight line and spin on the spot (by just holding up and down), but impossible to turn while moving -- maybe Robonica should use pressure-sensitive buttons or sliders to allow soft turns. You can trigger a momentary turbo mode by double-tapping the two forward



buttons, and the robot builds up turbo stamina as it gets more play time. The controller also displays some handy info -- the default card overlay on it points out battery levels, game score and multiplayer network status. If you leave the robot alone for 20 seconds, it'll start exploring and interacting with the accessories, and the controller will display its corresponding behavior modes and moods -- apparently it's happier if you have the base station turned on.

Robonica's designed seven games for the robot, with several made for multi-player extravaganza. We had a go on "Colors": under a time limit, you have to run the robot over the necessary RFID discs as instructed by the controller's LEDs, and then get to the hexagonal plate -- the "SFX Hub" -- to "deposit" the flags. As you reach higher levels, you'll be challenged with more flag combinations and will need to recharge at the "Energy Pod," but you'll get bonus point opportunities when the base station temporarily opens up for shooting (indicated by all LEDs flashing on the controller and the base station), as well as by staying on top of the ball within a certain proximity to the base station.

As with many things in life, the more the merrier for these Roboni-i games, but sadly we only had one unit to play with and the solo games did get lame after a while. If you're lucky enough to find fellow Roboni-i owners then you can network with three robots at any time, which will allow them to shoot at each other during games or explore mode. Here's an example we found on YouTube of the game "SpacePods" -- pretty much just a two-on-two capture-the-flag but with the ability to shoot the opponent's base station to reduce their score:

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Software

We were pretty impressed by the Roboni-i Command Center desktop suite -- despite the cheesy moon base video intro and its Windows-only compatibility, the illustrated guides were a lot easier to follow than we expected, and likewise with the program editor that involved mainly simple drag-and-dropping actions. The suite is also a gateway for flashing



new firmware, programs and games onto the robot via USB. A twelve-year-old should have little problem with mastering the software, not to mention its educational value in terms of basic programming (sequencing, loops, optimization etc.) as well. There's a surprisingly broad range of options available for programming on the Roboni-i. On the top level you can program the trigger buttons on the controller, the robot's auto behaviors (for example, a little dance when in a certain

mood), and how it reacts with other robots and each accessory -- including the ball, which presumably contains an RFID tag as well. As you can see above, the variables include traveling direction, lights and sound. Beginners will have to spend more time with the robot in order to unlock special actions, and you can track its active period on the robot profile page. If there's a hack for this, please get in touch -- not that we want to cheat, but we just don't want to burn through a dozen batteries to get there. Regardless, this splendid desktop suite definitely makes up a great part of the price you pay for.

Wrap-up

The Robonica Roboni-i is no doubt an impressive piece of kit -- great hardware with an astonishing number of customizable options, courtesy of its intuitive programming suite. Control is also a breeze but turning can be better. If the seven games aren't enough, advanced users or even schools can make a creative project out of it for new game ideas. This robot is no doubt a good option for parents seeking ways to enhance their children's logic in a fun way, but as the price tag shows, it's hard to get the best out of it for those who may only buy one unit, so hopefully more schools will see the educational value in it and order a few for their youngsters. Some sort of nationwide robot tournaments for these dudes would be totally awesome too, don't you think?