

Robosapien RS Media robots

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The Wowwee Robosapien RS Media robot is an interesting device for remote experimentation, lab practice, e-learning and teaching 'robotics'. Since the robot was produced as a toy it is available on the market for a low price. The robot is equipped with a camera module, infrared sensors, a microphone and bumpers. The on-board ARM processor runs a customized embedded Linux OS. All robot joints can be controlled by shell scripts or by a J2ME API. The robots behavior can be programmed graphically via a simple Windows based software. The robot can playback prerecorded MP3 files depending on sensor events. The embedded Linux kernel does

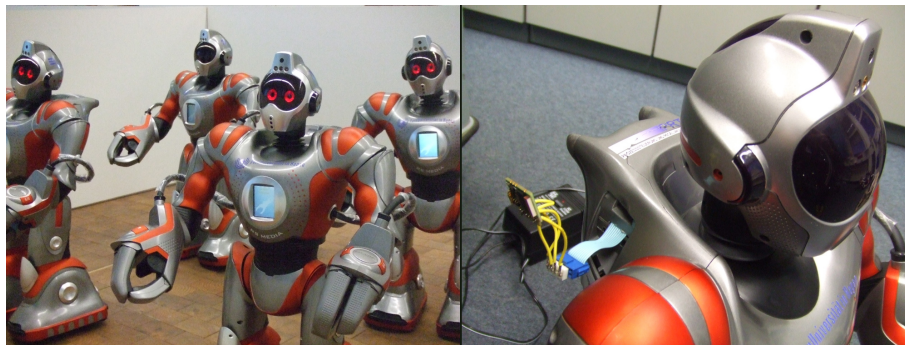


Figure 1: PRT Robosapien robot fleet, bluetooth serial console modification

not support TCP/IP networking and kernel configuration for the device is not available. To access the robots command prompt the ARM processor board serial console is connected to a bluetooth module [1].

We have realized a robot Web interface for PDAs and mobile phones. Due to the lack of TCP/IP support, a Web-based interface to the robot requires an external web server. This web server sends client movement requests via CGI script to the serial console of the robot. The user is able to request remotely from the robots integrated camera to take a photo, and to initiate the upload via zmodem to the web server.



Figure 2: Web interface Windows Mobile, Google Android simulator

[1] <http://www.evosapien.com/robosapien-hack/nocturnal2/node/447>