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Hardware Article

Shybo. An open-source low-anthropomorphic robot for children

Maria Luce Lupetti

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**Title:** *Shybo. An open-source low-anthropomorphic robot for children.*

**Authors:** *Maria Luce Lupetti*

**Affiliations:** *DAD, Department of Architecture and Design, Politecnico di Torino*

**Contact email:** *maria.lupetti@polito.it*

**Abstract:** This article presents Shybo: a novel low-anthropomorphic robot for children. The robot, resulted from the combination of open-source hardware and software, is able to perceive sounds and to react through two non-verbal behaviors: hat's movement and lighting. By taking advantage of an open-source machine-learning software, the robot can be easily trained by children. This robot can be employed in research to support human-robot interaction studies with children, for investigating perceptual aspects of robot's features or for investigating children' cognitive abilities. It can also be used for applications in educational context to support playful learning experiences.

**Keywords:** *child-robot interaction; open hardware; open design; 3D printing; machine-learning;*

## Specifications

Hardware name	<i>Shybo</i>
Subject area	<i>Educational Tools and Open Source Alternatives to Existing Infrastructure</i>
Hardware type	<i>Other: Sound-reactive learning robot.</i>
Open Source License	<i>GNU General Public License (GPL) 3.0</i>
Cost of Hardware	<i>80 \$ - 171 \$</i>
Source File Repository	<i><a href="https://osf.io/xk2r4/#">https://osf.io/xk2r4/#</a></i>

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