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- Karen Lemmel-Vélez (1) Email author (karen.lemmel@pascualbravo.edu.co)View author's OrcID profile (View OrcID profile)
- Carlos Alberto Valencia-Hernandez (1)

1. Institución Universitaria Pascual Bravo, , Medellín, Colombia

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Abstract

A self-learning guide for assembly robots BIOLOID PREMIUM in human form is presented, where elements of augmented reality are included in order to facilitate the process of assembly and manipulation of prototypes. This guide was evaluated with students belonging to the research seeding SAURO (research seeding in Automation and Robotics) of the Institución Universitaria Pascual Bravo.

For the design of the guide was necessary the 3D model of the humanoid robot and the creation of augmented reality markers, all with the aim of promoting the interaction of students with technological objects and robotic platforms; for this the software Google sketchup and Build AR Pro were used.

It was achieved that the process of assembling the BIOLOID PREMIUM humanoid robot at the time of execution decree. The students using the guide manifested who had fun learning how to put together the robot, who had flexibility in learning and could manage their own time. Likewise, the use of this guide facilitated the understanding of the parts of the robot and the function that each of them fulfills and even the students declared the control of the self-learning process.

On the other hand, students externalized that their interpretation skills of 3D models and their spatial location got better with the use of the guide with elements of augmented reality.

Keywords

Augmented reality Engineering education Self-learning
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