Educational Robots: Learn To Program Service Robots

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Abstract:

Issue Statement: According to the International Federation of Robotics (IFR), as of February 7, 2018, production automation accelerated around the world: 74 robot units per 10,000 employees was the new average global robot density in manufacturing industries (2015: 66 units). By region, the average density of robots in Europe is 99 units, in the Americas 84 and in Asia 63 units. The 10 most automated countries in the world are: South Korea, Singapore, Germany, Japan, Sweden, Denmark, the United States, Italy, Belgium, and Taiwan.

The most roboticized Latin American countries appear far below the list, which is a problem since they are far from the global average of 69 robots per 10,000 employees. But optimistic calculations, such as those of the technology consultancy Metra Martech, indicate that robots currently in operation have been responsible for the creation of at least 8 million jobs, to which a million more will be added in the coming years. Based on this, a way was thought in which the new generations can prepare themselves from the fourth grade in having and programming robots in a semi-humanoid way, with simple to complex activities, depending on the academic degree that they have, based on this in the ESROBOTICA company, A series of robots for educational centers was created, the robots can be programmed in different languages from blocks to codes, with their pedagogical plan from fourth grade to high school.

Methodology and theoretical orientation: the researcher was based on his idea of the Christopher robot, a service robot, and generated a series of robots from A0 to A11. Conclusion: the idea was presented at ROBOCON, giving second place as an innovative idea at the international. Recommendations are made for next 2021; each version will be tested with children according to their academic grade.

Biography:

He works as a researcher at the Gerardo Barrios University. Graduate in Statistics from the University of El Salvador. He has developed a series of investigations following a line of study through Robotics in the educational, social, and service branches, within the university with innovative projects, as well as related workshops. In his company called ESROBOTICA, he resumed the Christopher project and is currently developing series A robots for educational purposes. He has participated as a speaker in both national and international events, such as Nicaragua, Morelia Mexico, in Los Angeles California, in which he participated with the topic of his robot, entitled: Christopher a social and service robot in turn is the coordinator of the INNOTECH UGB team where he is the leader of 25 young people who develop technology projects, he is the moderator of an international robotics group on social networks, he is part of the team of the company Nutrición, CODEDARENA and revistade robots.

Publication of speakers:

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