

AIUB DSpace Publication Details

Title: Mathematical Modeling and to carry out a prototype helpmate differential drive robot for hospital purpose Author(s) Dewan Mohammed Abdul Ahad, Amzad Ali Sarkar, and Mohammad Abdul Mannan Name: Contact mdmannan@aiub.edu **Email(s): Published** Journal American Academic & Scholarly Research Journal Name: Type of **Journal Publication:** Issue Volume: **Publisher:** American Academic & Scholarly Research Center **Publication** November 2014 Date: **ISSN:** 2162-3228 URL: https://aasrc.org/aasrj/index.php/aasrj/article/view/1604 Other Page 1-15 **Related Info.:**

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Abstract:

Robots are quite adjustable with the human society. Especially in industries, hospitals, school-college, military in everywhere. But developing countries are much more behind with this. Food, cloths, shelter, education, health in every sector they are struggling. The authors choose one of the sectors of the basic needs, where robots can perform as a helpmate for hospitals or clinics. The helpmate uses wheel encoders and sensors information to steer. This paper presents mathematical modeling, hardware and electrical design and implementation of prototype differential drive helpmate robot, with a complete navigation system is aided by four types of behaviors which help to reach its destination successfully.

Keywords: Mobile robot, Helpmate, IR sensor, BBB.