

## Collective Movement between Two Lego EV3 Mobile Robots

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**Abstract :** Robots are working in industry and services performing repetitive or dangerous tasks, however, when flexible movement capabilities and complex tasks are required, the use of many robots is needed. Also, productivity can be improved by reducing times to perform tasks. In the last years, a lot of effort has been invested in research and development of collective control of mobile robots. This interest is justified as there are many advantages when two or more robots are collaborating in a particular task. Some examples are: cleaning toxic waste, transportation and manipulation of objects, exploration, and surveillance, search and rescue. In this work a study of collective movements of mobile robots is presented. A solution of collisions avoidance is developed. This solution is levered on a communication implementation that allows coordinate movements in different paths were avoiding obstacles.

**Keywords :** synchronization, communication, robots, legos

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