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An Implementation of a Path Planning Algorithm for a Robot

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Oral Presentation O2.2

AN IMPLEMENTATION OF A PATH PLANNING ALGORITHM FOR A ROBOT

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Robot path planning is a multi-discipline field that is interested in finding consistent solutions to travel from some starting point to a goal location. There are many varying applications that include mundane things like the Roomba and unusual things such as the Mars exploration robots. Path planning tasks, while easily accomplished by humans, are difficult for robots. This presentation will examine several basic approaches to path planning, the evolution of two-dimensional sensorless navigation problems, and some difficulties that occur when applying path planning algorithms to a physical medium. It will also include a demonstration on a robot of an algorithm created by IWU faculty member Josh Brown Kramer and his coauthor Lucas Sabalka.