



## << IMPLEMENTATION OF A CONTROLLER FOR ROBOT MODELS IN GAZEBO >>

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### TELEKOM INNOVATION LABORATORIES

To support the Intelligence team of Telekom Innovation Laboratories ([www.laboratories.telekom.com](http://www.laboratories.telekom.com)) in Berlin we are looking for: Implementer of a Controller for Robot Models in Gazebo

#### Responsibilities

Deutsche Telekom invests into solutions to automate and optimize the shop floor processes of their industry customers. A common optimization problem is Job Shop Scheduling, which is solved by means of either classical or quantum optimization solvers. To demonstrate a working schedule, we intend to ramp up a working demonstrator with machines and robots. To be flexible and to show different setups of the problem and the solution, the demonstration should be done in a virtual environment (see <http://gazebosim.org/>, Version 9). The results of the minimization is provided as a list of JSON elements to the robots. The schedules for each robot are expressed in a list of JSON elements, where each element has the following format, [start point, end point, start time, job index / -1]. The job index is the workpiece which has to be transported or -1 if it is an empty transport.

#### Requirements

- Python 2.7
- ROS (Version "melodic")
- Gezebo Sim (Version 9)
- Turtlebot3 Fluent spoken and written German and English
- Regularly enrolled student at a German university

#### Contact person

Wolfgang Steigerwald

Please send your complete application to [Wolfgang.steigerwald@telekom.de](mailto:Wolfgang.steigerwald@telekom.de)