

In order to configure the SLAM node 'move_base' to the environment we first made copies of the configuration files used in cpmr_ch7. There were 4 configuration files within that project: base_local_planner_params.yaml, costmap_common_params.yaml, global_costmap_params.yaml, and local_costmap_params.yaml. The help of [http://library.isr.ist.utl.pt/docs/roswiki/navigation\(2f\)Tutorials\(2f\)RobotSetup.html](http://library.isr.ist.utl.pt/docs/roswiki/navigation(2f)Tutorials(2f)RobotSetup.html) and <https://www.youtube.com/watch?v=bXNK8VTQ4zo> was used in verifying what parameters should be changed to configure the node to our environment. For local_costmap_params, the width and height fields were changed to 12.0 each, displaying that the map will be a 12m-by-12m area and the resolution in accordance with the generated map files was left at 0.05. For global_costmap_params the origin_x and origin_y fields were changed to the origin given in the map output.yaml which is -100 for both, again keeping the resolution at 0.05. The other 2 parameter files were left unchanged. Costmap_common_params was not changed because the fields obstacle_range, raytrace_range, robot_radius, and inflation_radius was sufficient enough going from a 10m² area to a 12m² area. Similarly base_local_planner_params was also not changed because the velocity and acceleration fields were reasonable for the environment that we were using.