Steps to reproduce the project

Setup Steps:

since we are using Galactic ROS2
Installing:

```
sudo apt install ros-galactic-slam-toolbox
sudo apt install ros-galactic-nav2-bringup
sudo apt install ros-galactic-navigation2
```

Configuration:
(Is recommendable to make a backup of the files that are gonna be modified)
`cp /opt/ros/galactic/share/slam_toolbox/config/mapper_params_online_async.yaml /opt/ros/galactic/share/slam_toolbox/config/mapper_params_online_async.yaml.bkp`

`cp /opt/ros/galactic/share/nav2_bringup/params/nav2_params.yaml /opt/ros/galactic/share/nav2_bringup/params/nav2_params.yaml.bkp`

After making a copy we update the files with our configurations
`cp ./mapper_params_online_async.yaml /opt/ros/galactic/share/slam_toolbox/config/mapper_params_online_async.yaml`

`cp ./nav2_params.yaml /opt/ros/galactic/share/nav2_bringup/params/nav2_params.yaml`

Add the respective scenes to coppelia.

```
rob_project_WIP.ttt
rob_project_full_v1.ttt
```

```
rob_project_mini_v1.ttt
```

Running of the project.

1 Terminal:

```
~/apps/CoppeliaSim_Edu_V4_3_0_Ubuntu20_04/coppeliaSim.sh
```

2 Terminal:

```
ros2 launch robomaster_ros ep.launch name:=robo1
tof_0:=True tof_1:=True tof_2:=True tof_3:=True
```

3 Terminal:

```
ros2 launch nav2_bringup navigation_launch.py
```

4 Terminal:

```
ros2 launch slam_toolbox online_async_launch.py
```

5 Terminal:

```
ros2 run rm_nav rm2goal
```

6 Terminal:

```
ros2 launch nav2_bringup rviz_launch.py
```

7 terminal:

```
ros2 run tf2_ros static_transform_publisher 0.0 0 0.00 0
0 0 robo1/base_link robo1/base_scan
```

(opt) Terminal:
save the map

```
ros2 run nav2_map_server map_saver_cli -f ~/map
```