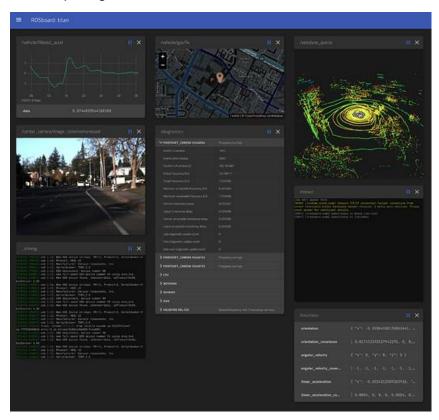## Graduation or Internship Assignment: Web Interface for Navigation and Fleet Management

We use ROS 2 and Navigation 2 to let our mobile robots move around. Currently, the robots can be controlled with C++/Qt applications from a computer running Linux. However, we want to operate the robots from a web interface so they can be controlled from any device. There are several open source projects already working on this topic, such as Route-Admin-Panel, ROSboard and there are also generic ROS bridges for React, Node.Js and Javascript/Angular.

Web visualization of ROS topics using ROS Board

Task description

You will research the working flow of configuring and controlling a mobile robot. You define which criteria are important, investigate the available web frameworks and select the best framework to use. You develop a web application that visualizes the mobile robot and allows users to control the robot. If navigation turns out to be straight forward, you will pick up fleet management using RMF in ROS 2.

Practical Information

Student Profile: Applied Computer Science, Computer Science (HBO-ICT), Electronics, Mechatronics (with interest in software aspects of robotics)
Duration: February 2022 – July 2022
Compensation: 230 euro per month, before taxes
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