All my frustrations with ROS summed up in 5 minutes*

* my experience building ROS-powered robots...

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ROS is great for academia and industry...

But spare-time hobby roboticists have different needs:

- Budget constraint
- Have "something move" as fast as possible
- High level platform for new behaviors.

Want to offer insights into what problems a hobby roboticist encounters, and introduce a new ROS package for an affordable robot to make robotics easier to get into!

Robotics on a budget

€739,-

€3.206,50

€95,-

Have "something move" as fast as possible

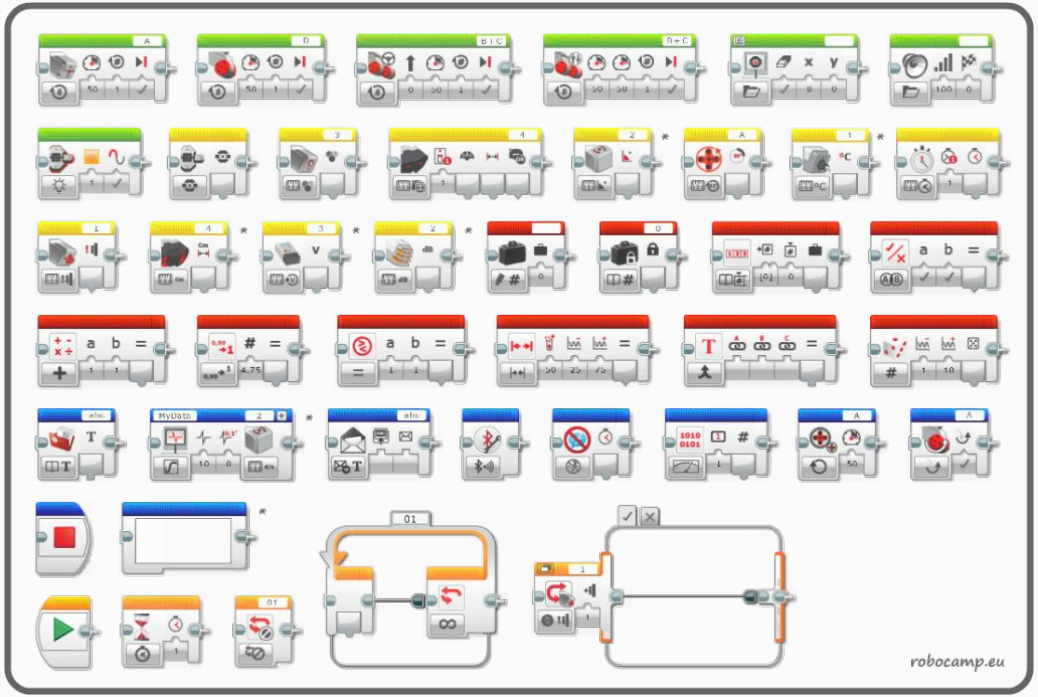
- Beginner: CLI tools
  - Configuring environment
  - Using `turtlesim`, `ros2`, and `rqt`
  - Understanding nodes
  - Understanding topics
  - Understanding services
  - Understanding parameters
  - Understanding actions
  - Using `rqt_console` to view logs
  - Launching nodes
  - Recording and playing back data
- Beginner: Client libraries
  - Using `colcon` to build packages
  - Creating a workspace
  - Creating a package
  - Writing a simple publisher and subscriber (C++)
  - Writing a simple publisher and subscriber (Python)
  - Writing a simple service and client (C++)
  - Writing a simple service and client (Python)
  - Creating custom msg and srv files
  - Implementing custom interfaces
  - Using parameters in a class (C++)
  - Using parameters in a class (Python)
  - Using `ros2doctor` to identify issues
  - Creating and using plugins (C++)

Thanks to The Construct for making great tutorials!

High level platform

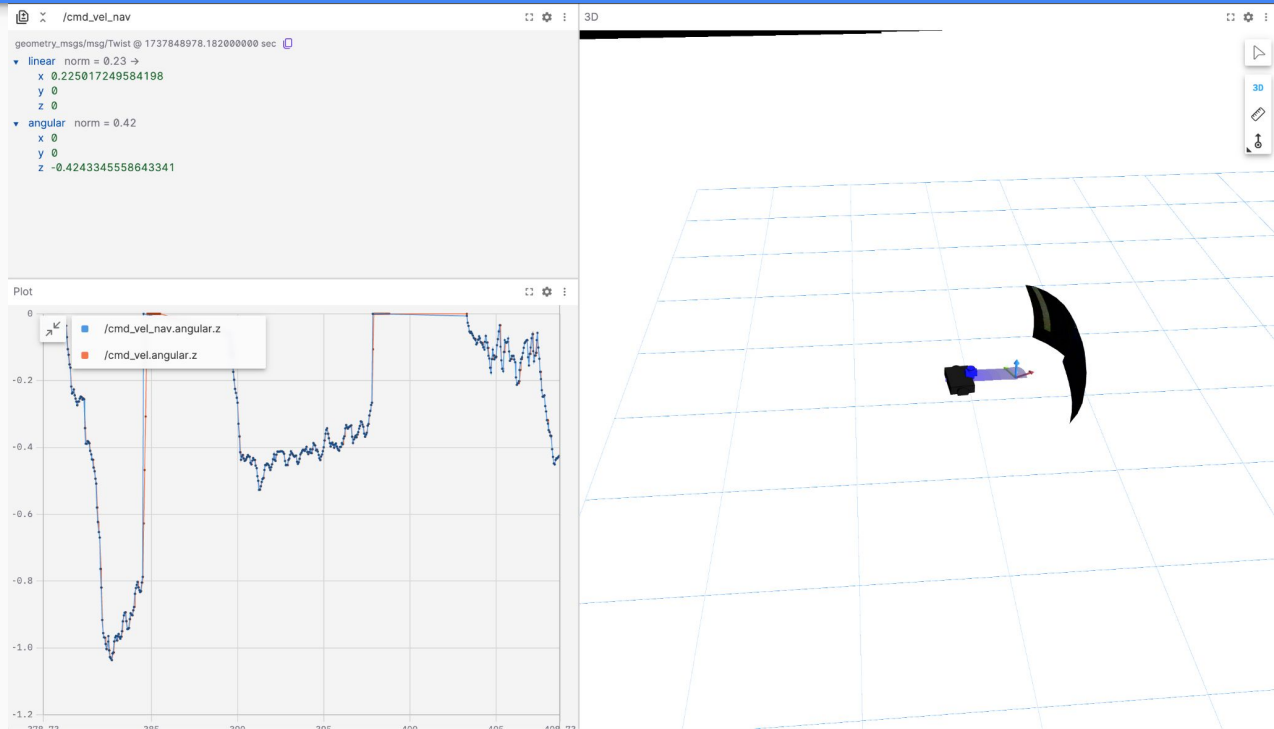
Hobbyists want to be creative, not debug their ROS stack...

Instead of learning how to map your house with a laser scanner, start with waypoints relative to your robot?



High level platform

We need more tools such as FoxGlove to get insights into our stack!



VIAM Rover ROS package

README Apache-2.0 license

Viam Rover Ros

This package is a ROS package for the Viam Rover. It completely replaces the Viam software and instead uses ROS to control the rover. I hope that it can provide a cheap entry point into the world of robotics for people who are interested in it as a hobby.

About the VIAM Rover

The VIAM Rover is a small robot that is designed to be a cheap entry point into the world of robotics. It is based on the Raspberry Pi and uses a motor controller board to control the motors. The rover has a camera sensor, which can be used for remote control.

You set it up by following the tutorial on the VIAM website. For my robot that was:
https://docs.viam.com/dev/reference/try-viam/rover-resources/rover-tutorial-1/.

Installation

To install the package you need to clone the repository into your ros2 workspace and then run:

```
colcon build
ros2 launch src/viam-rover-ros/launch/viam_rover_launch.py
```

Conclusions

- Lowering the entry bar into robotics will boost the whole industry
- I hope the VIAM rover can be an affordable start to your robotics journey and lower the bar into this hobby!

Conclusions

https://github.com/rmeertens/viam-rover-ros

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