

XploreR

Autonomous Exploration with Virtual Reality Visualization

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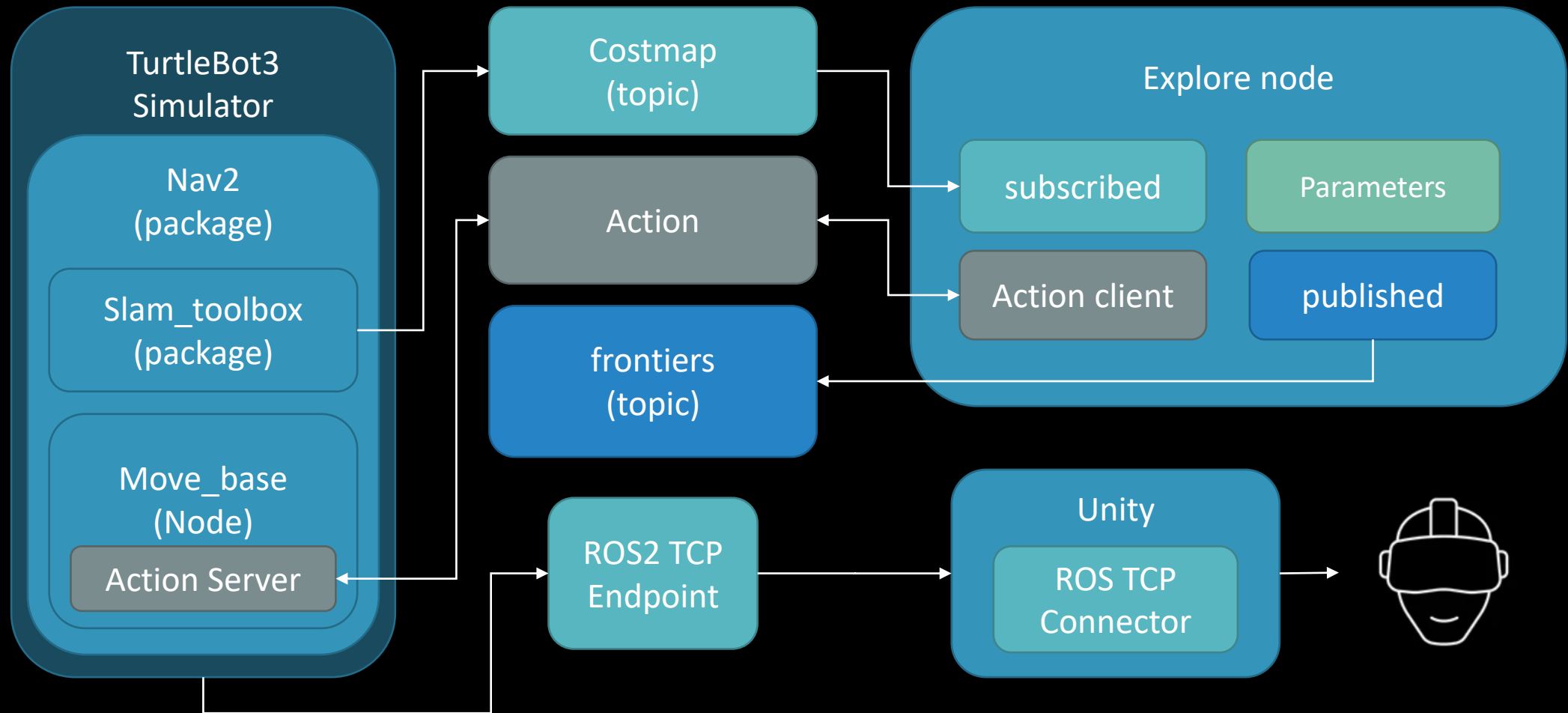




Achievements

- **Autonomous exploration** strategies enable the robot to determine the next location to explore in order to map as much of an unknown environment as possible.
- **Visualization** of the mapping process in a **Virtual Reality scene**
- Multiple environments and tools were used: **Docker, ROS2 Galactic and Unity**

Overview



Outcomes

1

Simulation
in Gazebo
with
TurtleBot3



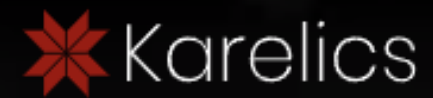
2

Simulation,
connection to
ROS2, and VR in
Unity



3

Karelícs
Robot
SAMPO2





Teaser Video

Come check
out KARELICS
SAMPO2
exploring the
Carelia Hall





Thanks!

- GitHub repository:
<https://github.com/Fabulani/xplorer>
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