Who we are

We create open software and hardware platforms for robotics. We use those platforms to solve important problems and we help others to do the same.
Where we are
Ignition Gazebo: Organizing principles

Provide the best software stand-in for a physical robot

1. Physics
2. Sensing
3. Extension
4. Modularity
Physics

- No single engine is best for all situations
- Common API atop multiple physics engines
- Choose engine at runtime
- Maximal and reduced coordinate approaches
- Allows simple engines, e.g., kinematics-only
SENSING

- Parameterizable models of common sensor types
- Parameterizable models of common noise types
- Common API atop multiple rendering engines
- Export sensor data via middleware (e.g., ROS)
• C++ plugin API allows any kind of extension
• Get and/or set the world between physics steps
• Add or extend sensors
• Interface with hardware input devices
• Fake interactions that are impractical to simulate
• Delegate interactions to other systems
MODULARITY

- Monolithic Gazebo decomposed into Ignition libraries
- Libraries can be reused in other applications
- Ignition Gazebo is just one particular composition
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<td>Physically based rendering (PBR) materials</td>
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<td>GUI tools for model placement</td>
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Use cases
Humanoids
Subterranean exploration
Boats
Drones
Industrial arms

Team AAU
Autonomous vehicles

Wide range of assets
Or import Collada, STL, or OBJ files
Non-autonomous vehicles
Investment generally results in acquiring an asset, also called an investment. If the asset is available at a price worth investing, it is normally expected either to generate income, or to appreciate in value, so that it can be sold at a higher price invest.