Assignment - 3

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Identify the two ROS based autonomous Robots apart from the Turtlebot family and Write about it.

ROSBOT 2.0 ROBOT

ROSbot 2.0 is an autonomous, open source robot platform running on Husarion CORE2-ROS controller. It can be used as a learning platform for Robot Operating System as well as a base for a inspection robots, custom service robots etc.

It integrates:

- CORE2-ROS controller
- 4-wheels mobile platform containing 4 DC motors with encoders and an alluminium, painted frame
- RGBD camera Orbbec Astra
- RPLIDAR A2 laser scanner
- MPU 9250 inertial sensor (accelerometer + gyro)
- rear panel providing controls and interfaces for additional modules

The new ROSbot 2.0 is a successor of ROSbot. The main differences are:

- RGBD camera on additional bracket,
- redesigned chassis,
- batteries accessible from the bottom, without removing the top cover,
- new rear panel with more controls (LEDs, buttons) and interfaces

COPERNICUS ROBOT

Botsync Copernicus is a rugged and easy to integrate ground robot designed to support your prototyping and research needs for outdoor applications. Copernicus supports the ROS out of the box and provides access to motion commands through a serial interface. The system has been designed to support multiple third part sensors and manipulators. The support covers the software as well as the electromechanical integration of the sensors that you need, such that your effort in setting up the system that you need for your research efforts is as minimal as possible.

- Rugged platform of size of 860 x 760 x 590 mm
- A powerful 24V, 42 Ah LiFePO4 battery pack for long operations
- Easy integration of external/payload modules of up to 50 kg
- Ground clearance of 130 mm
- On the spot turning capability (0 degree turning radius)
- All-terrain capability with 30 degrees of maximum slope
- Maximum speed of 1.3 m/s
- Reliable and strong 4 x 4 drivetrain