







MIT DEVELOPS AUTONOMOUS ROBOT USING JACKAL UGV MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

Michael Everett, Steven Chen, Dr. Jonathan How

A team at MIT has successfully developed a robot using a Clearpath Jackal UGV that is capable of navigating autonomously among crowds and pedestrians. The research has yielded great success, being published for the International Conference on Robotics and Automation, winning the best student paper award at IROS 2017, and garnering attention on various media outlets.

Read the full story **here**



AUTONOMOUS MAPPING & NAVIGATION RESEARCH STEVENS INSTITUTE OF TECHNOLOGY (SIT)

SIT GROUP

The problem of autonomous exploration requires robust and complex algorithms that tackle a number of different subtasks, including mapping, classifying, and navigating a completely unknown environment. A research team at Steven's Institute of Technology (SIT) is using a Jackal UGV to rapidly test and validate their autonomous exploration and path planning algorithms in the real world and to advance their robotics research.

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MAPPING HISTORIC RAILROAD TUNNELS UNIVERSITY OF VIRGINIA

Nicola Bezzo, University of Virginia Group

The Blue Ridge Tunnel is a historic railroad tunnel that runs through Blue Ridge Mountains in Nelson County, Central Virginia. The tunnel was decommissioned in 1944, and the County recently received funding to restore the tunnel and reopen it as a pedestrian rail trail. Part of the restoration process required an initial assessment of the safety and state of the tunnel. For this job, project organizers called on Nicola Bezzo and his team at University of Virginia, and their Jackal UGV mobile robot.

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JACKAL UGV ADVANCES AUTONOMY RESEARCH NAVAL SURFACE WARFARE CENTER - PANAMA CITY

Kyler Hast, Brandon Sheffield

Each year, teams from the Panama City Division of the Naval Surface Warfare Center, participate in a NERF battle of epic proportions. Each team must develop a robot capable of navigating an obstacle course autonomously while hitting several targets with attached NERF guns. In the most recent competition, teams used Jackal UGVs to develop their robots. By using the Jackals, teams were able to minimize hardware and software problems, and focus on developing machine learning and AI algorithms while rapidly prototype new ideas.

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JACKAL UGV MODERNIZES SITE INSPECTION TRANSFORMA ROBOTICS

Professor Chen and Team

The Building Quality Inspection and Assessment Robot, or Quicabot for short, is a quality assessment robot used in construction sites. This robot based on Jackal UGV, uses various integrated sensors to autonomously inspect construction locations for defects, such as cracks, flat walls and hollow tiles. Professor Chen and his team at Transforma Robotics chose Jackal UGV because it is compact and easy to move around in large areas. In addition, the ruggedness of the Jackal was ideal for the semi-finished buildings and construction environments. Jackal UGV was also chosen due to its ROS integration and open architecture.

Read the full story <u>here</u>