Real-Time Radiation Detection & Mapping

Robots for Nuclear Power Plants



Nuclear Power Products and Services



About our Teaming Partner

Curtiss-Wright has partnered with Createc to provide advanced monitoring and realtime radiation data collection to customers seeking to enhance safety, efficiency, and performance through technology and robotics.

Createc, a U.K.-based company, specializes in robotics, sensors, and imaging systems. With a diverse mix of technical experts and an agile engineering team, they can efficiently build prototype systems and develop them into working products. Createc's experience includes nuclear decommissioning, transport, energy infrastructure, defense and security sectors.



Detect and map radiation in real-time using Createc's NV-Explore, a radiometric payload system for unmanned ground vehicles (UGVs). As the UGV explores an area, the radiation sensing hardware collects omnidirectional radiation information.

NV-Explore leverages over a decade of research and operating experience. The system's advanced algorithms can pinpoint radiation sources with exceptional spatial accuracy, allowing operators to make decisions confidently and enhance efficiency.

The NV-Explore payload integrates seamlessly with Spot from Boston Dynamics to capture valuable data, including radiometric 3D point cloud and quantitative radiation measurements. The collected data can then be further processed for deeper insights and quantification.

Operations

Attach Payloads: NV-Explore comprises multiple payloads that easily attach to the robot's back on a single chassis.

Take Survey: Start recording data by moving the robot around the area of interest, even remotely for added safety.

View Live Data: Instantly see the dose plane and gamma augmented reality views on the robot control tablet, gaining a real-time understanding of the radiological situation.

Download Data: Utilize NV-Explore's web-based file management system to efficiently access survey data after each scan.

Inspect Data: After the survey, review the data for deeper insights and analysis, empowering you to make strategic cost-saving decisions.

Benefits

- Improve safety through reduced worker dose and entry into hazardous areas
- Increase efficiency
- Reduce operational costs
- Move beyond traditional data collection methods
- Real-time dose mapping in a 3D model
- Quantified dose planes and activity levels using post-processing software
- Invaluable information for project planning, briefing, and monitoring

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