



Autonomous Disaster Search & Rescue System

Product Brief

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System Highlights

- Omni-chassis
- 6-Wheel or Track drive system
- Inertial Measurement System
- "Green" Electric Drive system
- 24V 900Ah Battery system
- Distributed Processor System
- Future – voice command control
- Main Arm – 12' reach

DESCRIPTION

The Autonomous Disaster Search & Rescue System (ADSRS) is one of the most advanced payloads within the Forager product line. This unit has a multifunction role in the disaster relief arena.

The ADSRS is best suited when combined with Forager-ARV. This Omni-Chassis was chosen for the autonomous function in combination with the ability to function as a remote control system.

ADSRS utilizes a basic 3-arm configuration.

MAIN ARM:

Heavy lifting is the primary role; the arm is equipped with an end-effector that is either a flat plate and thumb



role; the arm is equipped with an end-effector that is either a flat plate and thumb or a 2-finger and thumb. The arm is hydraulic driven.

SECONDARY ARM:

The arm has a primary function of cutting debris or cables thus allowing the main arm to remove the item. The arm will also have the ability to deploy "Vole-Bots" from the storage block if the option is mounted to the payload.

SENSOR ARM:

This system is the heart of the overall payload. The pod on the end of this arm is used to locate trapped victims and lethal chemical leaks. This keeps rescuers out of harm's way until the last

Sensor Array Arm Pod

- Color CCD Camera
- Night Vision Camera
- Methane Sensor
- Carbon Dioxide Sensor
- Carbon Monoxide Sensor
- Hydrocarbon Sensor
- Directional Microphone

possible second. The end-pod is bullet shaped to allow it access into the debris area without fear of damage; the camera has a 180° x 360° field of view.

The ADSRS is predominately self-contained; there is a secondary power connection to the chassis power system to extend the usage time.

Communications between the payload and the chassis system is done wirelessly to remove cables.

This system can also work in conjunction with other systems and their "Vole-Bots" via a meshed network.



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