Ground Robots Information Page

Unmanned Ground Vehicles

This will contain some awesome information and photos about ground robots!

Summary

Pictures and information on various unmanned ground vehicles.

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A) Talon

Over View

The Talon Robot developed by Foster Miller is large enough to be able to be outfitted with serious payload while still being small enough to be easily portable. It is capable of anything from bomb disposal, search and rescue and is even capable entering combat with mounted weapon systems. The talon utilizes a variety of sensors that can identify nuclear, chemical and biological threats. Some of the weapons that can be mounted on the Talon range are M16 assault rifles and a 6mm rocket launcher. The Talon range is approximately 1000 meters. It is also amphibious and can withstand depths of up to 100 feet. By 2004 Talons have been used in approximately 20,000 missions.

Specs

I) Weight- Anywhere from 60 to 100 pounds depending upon the attachments.
II) Dimensions- 32 1/2" long, 17 1/2" wide, 22 1/2" tall. The Talon also has an extend arm that fully extended is 51" long.
III) Battery Type- AC power, Lithium batteries, or Singars rechargeable batteries.
IV) Top Speed- 6mph

OCU

The OCU like many other ground UGV's comes with a monitor to give real time video from the robot. Unlike many other OCU devices it has three joysticks; one two control the movements while two to control the extendable arm. In addition it has a variety of selector switches for everything from speed to gripper control. The Talon can also be configured to run on a laptop using a Microsoft Xbox controller for all of it controls.

Photos
B)Gemini

Over View

As of yet I have not been able to find any information about the Gemini robot and its military uses. All guesses as to its uses are mainly speculation through observation of the actually UGV and through civilian uses. Gemini's have been used for search and rescue in collapsed mine tunnels. Since it is extremely dangerous for rescue crews to enter a tunnel that has collapsed UGVs such as the Gemini are used to explore the tunnel and assess the dangers before humans enter.

Specs

I) Weight

II) Dimensions-

III) Battery Type-

IV) Top Speed

OCU
C) Modified Lawn Mower

Photos
D) Micro VGTV

Over View

The main uses of the Micro VGTV by Inuktun Services Ltd. with its small size allows it to fit into small spaces making it an ideal duct crawler and search and rescue robot. The Micro VGTV can fit within a 8 inch crawl space and has a 100 foot tether cord that connects the power supply, controller and video. It also is equipped with a video camera and two dimmer lights to allow the operator to see whenever and wherever. The Micro VGTV is a variable geometry tracked vehicle allowing it to transform from flat into a traingular shape allowing it greater versatility and range of movement.

Specs

I) Weight -
   - Approximately 8lbs

II) Dimensions -
   - When Flat 13 1/4" Long, 6 1/2" Wide, 6 1/4" Tall
   - At the highest geometric variable 8" long, 6 1/2" wide, 11 1/2" tall

III) Battery Type -
   - The Micro VGTV is powered through wall outlets by a 100 foot multiconductor tether cable.

IV) Top Speed -
   - A blazing 1 mph

OCU

Also made by Inuktun Services Ltd. is centered around a single joystick that controls the direction with buttons to control the camera tilt, geometry of the UGV and brightness of lights. The OCU is routed through a box that controls the power, video and audio hook ups.

Photos
E)Mite

Over View

The Mite belongs to the Ratler family of platform robots originally designed for surveillance and reconnaissance. Its long battery life, durability and portability make it an apt platform for mounting a variety of sensors to. The Ratler platforms unique split body design allows it greater maneuverability over a variety of obstacles making it ideal for treacherous environments.

Specs

I) Weight

II) Dimensions-

III) Battery Type- Unknown

IV) Top Speed

OCU

The Mite OCU like many others has a standard screen and joystick to control movement. It does not have many other sensor controls on its face. As of yet I have not opened it up to examine the internal components.

Photos
Another member of the Ratler family, the QASAR is an amphibious robot equipped for both day and night surveillance and target designation. The QASAR has four motors individually controlled by Advanced Motion Controls 10ADD making it 4 wheel drive.

### Specs

1. **Weight**: 15.75
2. **Dimensions**:
3. **Battery Type**: 2 Nickle MH
4. **Top Speed**: 3.29mph

### OCU

The surface of the OCU holds the standard joystick and monitor. However, the QASAR has a cruise option to help maintain a constant speed. It also has a ‘gain’ feature to regulate the amount of power flowing into the motors.
Inside the operator control unit there is an Xetron Hummingbird transmitter/encryption device for movement and a Southern California Microwave Inc's VR201A/SC, a subdivision company of L3 Communications to transmit video. The joystick is a discontinued Invensys by ETI Systems. The entire OCU runs off one 12 Volt Power Sonic Model PS-1270 battery.

Photos

Unknown Robot Photos