

PackBot

A Versatile Platform for Military Robotics

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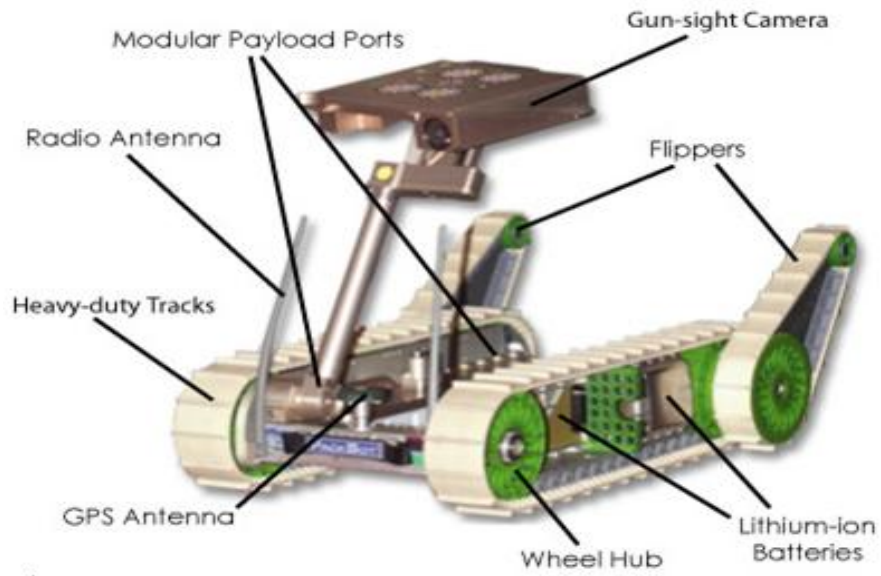
Goal

- To gain situational awareness while performing teleoperation with video feedback.

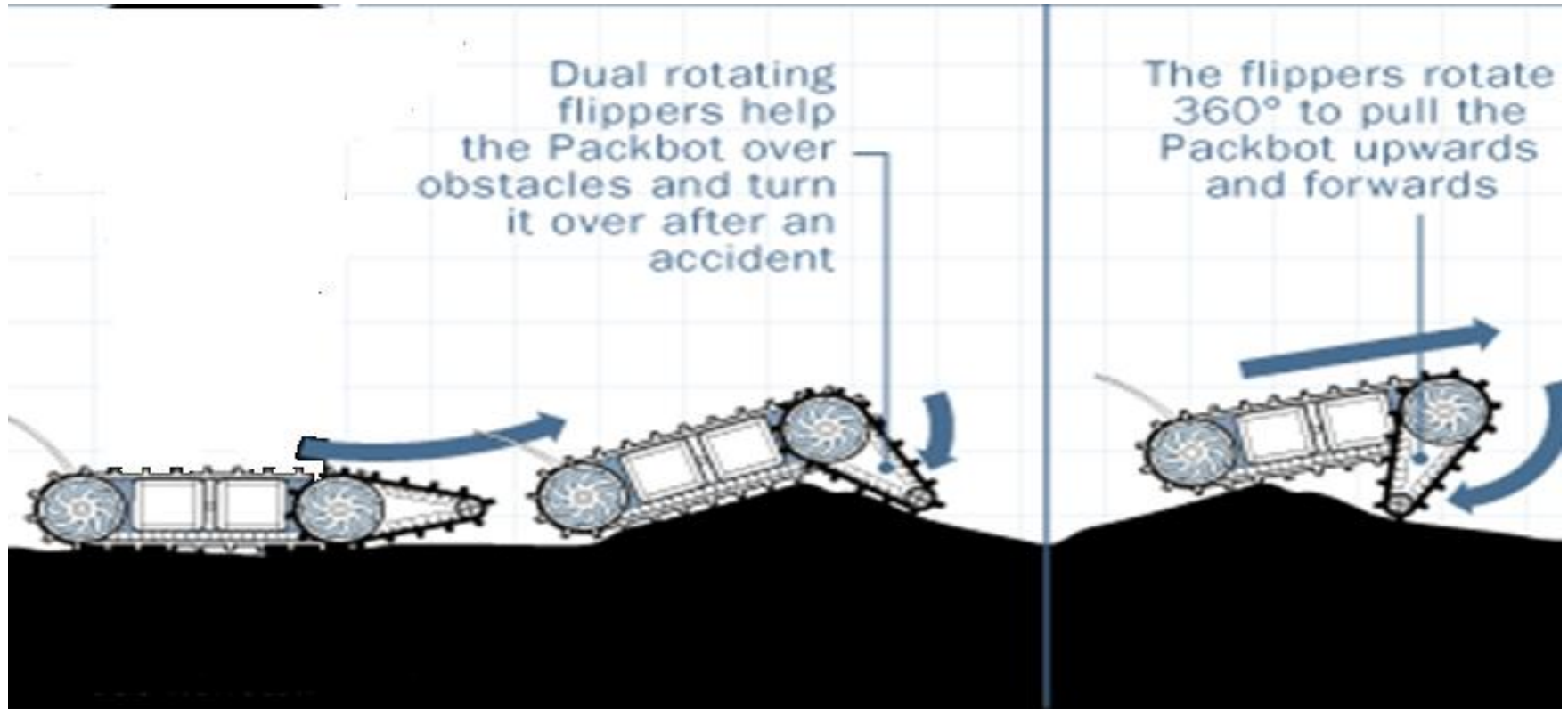
Tasks

- Perception of the elements in the environment
- Comprehension of the current situation
- Projection of future status

PackBot



PackBot Movement



PackBot Project : CHARS

- **CHARS:** Chemical weapons, Hazardous gas And Radiation Sensor
- CHARS payload carries and communicates with three sensors
 JCAD chemical weapons sensor,
 MultiRae hazardous gas detector,
 AN/UDR-13 Radiac radiation sensor
- Packbot relays the sensor data using 802.11b wireless network to Packbot OCU

PackBot Project : Griffon

- Griffon is a prototype for a UGV/UAV that a single soldier could transport, launch, fly to a destination, and use to deliver a payload.
- It is equipped with the Air Mobility System (AMS).
- AMS has
 - 1] Propeller Engine
 - 2] Steerable Parafoil
 - 3] Mounting point for the parafoil and engine

Packbot Project : Valkyrie

- Valkyrie is a project to develop a battlefield casualty extraction payload for the PackBot.



PackBot Project : Wayfarer

- The goal of the Wayfarer Project is to develop the technologies that will enable UGVs to gain urban information automatically.
- The PackBot includes digital video, FLIR, GPS, Pentium III processor, OCU and wireless teleoperation interface
- Specific task to gain urban information
 - Route Information
 - Perimeter Information
 - Street Information

References

- www.wikipedia.org
- <http://science.howstuffworks.com/military-robot3.html>
- http://www.army-technology.com/contractors/mines/i_robot/
- www.dtic.mil/ndia/11ground/laljer.pdf

PackBot in Action

- <http://www.youtube.com/watch?v=eaP0waiz43w>