

A Low-Cost, Commodity-Based Law Enforcement Robotic Platform for Barricaded Gunman and Hostage Scenarios

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Motivation:

Smaller law enforcement agencies generally can't afford existing remote surveillance systems.

Sample existing technology:

Dragon Runner
Automatika, Inc.
www.automatika.com



Extremely rugged
Battlefield tested
Custom designed
Too costly for small depts.



Commodity-Based Concept:

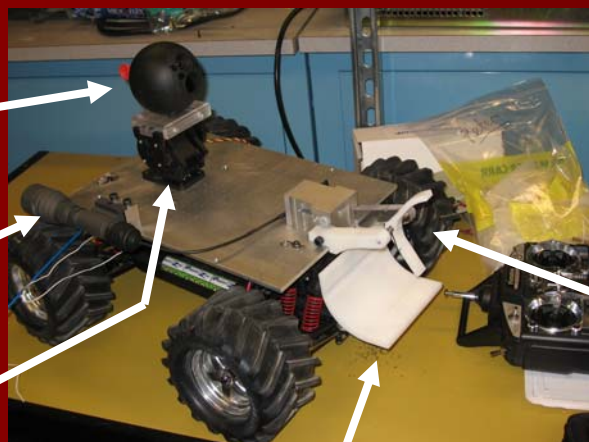
- Extensive base of low-cost components (i.e., RC)
- Protect high-value items
- Minimize engineering/development
- Sacrifice low-cost, commodity items

Targeted Applications:

- Barricaded Gunman/Hostage
 - Room by room search
 - Negotiation, communication
 - Delivery – cell phone, food, water
 - Reduce personnel exposure
- Investigate suspicious substances
- Inspect possible IEDs



ODF Optronics
Eye Ball R1



Visible Light source

Pan/Tilt Mechanism

Commercial chassis and radio.

Transmission modified for silent operation.

SWAT team design objectives:

- Man portable (<50 lbs)
- Quiet
- 360° observation
- Climb obstacles and stairs
- 2-way audio
- Night vision
- Illumination visible and IR
- Deploy CS gas (failsafe)
- Articulating arm able to flip over obstacles
- Durable
- Water resistant

CS Canister
Release
Mechanism



CS Gas Canister



Special thanks to the Albany NY Police Department SWAT Team for their ideas, support and encouragement