Cybermotion is pleased to present to The Office of Homeland Security

Automated Safety Patrol

...Beyond the humanly possible!
The Problem

In the aftermath of 9/11 and other terrorist-caused disasters, the risk of relying on poorly-compensated and ill-trained personnel to perform repetitive, boring security tasks has been repeatedly demonstrated. Worse yet, perpetrators of terror surely know when security lacks substance.

Foot patrol is a dramatic example of a task that humans tend to not perform very well. Now, Automated Safety Patrol offers a solution.
Why Automated Safety Patrol?

Automated Safety Patrol (ASP) provides wide area, broad spectrum, threat sensing in occupied or unoccupied indoor environments.
Based on a COTS System

This *is not* an R&D project!

CyberGuard® systems are in operation today and have already averted potential disasters!

The COTS product requires only the integration of *unconventional* threat sensor systems to provide an *even more* powerful public safety tool.
Conventional Threats

(Standard sensors on CyberGuard®)

Fire Prediction
(Gas, Smoke, Temperature, Flame, etc.)

Air Quality Assessment
(Carbon Monoxide, Smoke, Temperature, Humidity, etc.)

Human Presence
(Scanning PIR, Radar, Ultrasound, etc.)

Puddle Detection
(Laser Absorption)
Unconventional Threats
(detectors yet to be added to the standard system)

• Chemical Agents
• Biological Agents
• Radioactive Threats
• Facial Recognition of Known Terrorists
How does it work?

Robotic platforms perform automatic patrol on a *sequential* or *random* basis.

*Multiple* platforms are monitored from a remote location over available communication links.
How does it report?

- Instant situation assessment
- Instant graphic and map display
- Instant video
- Log files
- Incident reports
- Digital video recording
- Map displays
- Time-based graphs
- Trend analysis
Actual Incident

Fire Threat Assessment

Robot 1 at Facility B13

Surveying  Alarm

FIRE Threat Level: 103.1

Robot 1 is in an alarm state and is currently reporting a fire threat level of 103.1. This threat is from the flame sensor and is significantly confirmed by other sensors. It should be investigated.

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Reading</th>
<th>Threat Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke</td>
<td>001.1</td>
<td>00.0%</td>
</tr>
<tr>
<td>Gas</td>
<td>048.1</td>
<td>40.0%</td>
</tr>
<tr>
<td>Temp C</td>
<td>033.1</td>
<td>05.1%</td>
</tr>
<tr>
<td>Flame</td>
<td>020.3</td>
<td>58.0%</td>
</tr>
</tbody>
</table>
Incident Report

--- FIRE ALARM REPORT ---
C:\ROBOT1LOGS\04112325.FIR --
Robot 1 at B13 generated this report at:
Date: 04/11/2002 Time: 23:25:45
Status: ALARM!
  Map: B13
  Position: -107.74/-96.48
  Heading: +380
  Current Job: B13_DS to B13_HS
  Origin Node: B13_DS
  Destination Node: B13_HS
The Environment is unspecified.
  Fire Threat = 099.6
  ALARM - FIRE THREAT

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<td>000.7</td>
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<tr>
<td>Gas</td>
<td>067.1</td>
<td>047.2</td>
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<tr>
<td>Temp. F</td>
<td>073.3</td>
<td>000.0</td>
</tr>
<tr>
<td>Flame</td>
<td>006.2</td>
<td>052.4</td>
</tr>
</tbody>
</table>
Actual Incident :  Map Display
Actual Incident: Time Graph

- Temp
- Humid
- Smoke
- Gas1
- Gas2
- Light
CyberGuard® robots have a long record of safe and effective operation in facilities ranging from deserted warehouses to major airports.
Advantages over Foot Patrol

• Mitigates human foibles
• More consistent coverage
• Removes guard from threat
• Full reporting and recording
• Detects *much wider range* of threats
• Adds *an unknown element* for enemy/intruder
• Allows better use of human assets
• Reduces cost
Conclusions

Automated Safety Patrol is an invaluable tool for securing public and non-public places.

ASP systems can be deployed now.

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