

First Responder, Border Patrol, Homeland Security, Law Enforcement, and Security Robots: Market Shares, Strategies, and Forecasts, Worldwide, 2012 to 2018

https://marketpublishers.com/r/FBF3EF8DDDFEN.html

Date: May 2012

Pages: 463

Price: US\$ 3,700.00 (Single User License)

ID: FBF3EF8DDDFEN

Abstracts

WinterGreen Research announces that it has published a new study First Responder Type Robots: Market Shares, Strategy, and Forecasts, Worldwide, 2012 to 2018. The 2012 study has 463 pages, 183 tables and figures. Worldwide First Responder Type Robot markets are poised to achieve significant growth as the next generation robots systems provide a way to improve law enforcement services delivery in the communities of the world.

According to Susan Eustis, lead author of the study, 'In the new global economy supported by the Internet, communication between countries has become ubiquitous, enterprise teams are comprised of people from many different countries working together to make the enterprise work. In this context the need for homeland security and first responder actions by one country against another country becomes far less necessary. In this context, first responder robots can be deployed situationally to achieve control of those who would disrupt or steal from law abiding citizens.'

What is good for a robotic unmanned ground vehicles change the nature of war. They make war more of a police action. Civilian populations become a group that can be protected. War becomes a strategy of looking for the terrorists, of seeking out and stopping terrorist activities.

Civilization does not tolerate bombing or shooting at civilians. Women and children are not worthy targets. Police are looking for terrorists and trying to stop terrorist activities. The terrorists target civilians in order to create terror, but the homeland security and



police needs to target terrorists and protect civilians in order to get their job done effectively. Robots help in this task by sending robots instead of Homeland security and police into dangerous places.

Police work robot security systems have an emphasis on causality reduction during security patrols. This aim has resulted in investment in robotics technology because robots save lives. Robotic research is continuing to be a priority for government spending. The homeland security and police first responders have a goal of making ground security patrols operational.

The iRobot 210 Negotiator is a surveillance robot for public safety professionals is illustrative of devices that are likely to proliferate to every law enforcement agency worldwide. The iRobot 210 Negotiator performs basic reconnaissance. The robot increases situational awareness in dangerous scenarios. Instead of going into a dangerous situation and getting shot, it is better to send in a robot.

First Responder Type Robot markets at \$440.4 million in 2011 are anticipated to reach \$1.6 billion by 2018 as next generation robots are introduced to manage situational response to community threats. Robots will see increasing use in protecting borders.

WinterGreen Research is an independent research organization funded by the sale of market research studies all over the world and by the implementation of ROI models that are used to calculate the total cost of ownership of equipment, services, and software. The company has 35 distributors worldwide, including Global Information Info Shop, Market Research.com, Research and Markets, Bloomberg, and Thompson Financial.



Contents

FIRST RESPONDER, HOMELAND SECURITY, AND LAW ENFORCEMENT ROBOT EXECUTIVE SUMMARY

First Responder, Homeland Security, and Law Enforcement Robots Market Driving Forces

Homeland Security And Police Ground Robots

Robots Operate Independently

Homeland Security Law Enforcement And First Responder Ground Robots Market Shares

First Responder, Homeland Security, And Law Enforcement Robots Market Forecasts Police Actions Against Terrorists Replace Wars In The New Global Economy

1. FIRST RESPONDER AND SECURITY ROBOTS MARKET DESCRIPTION AND MARKET DYNAMICS

- 1.1 First Responders
 - 1.1.1 First Responder Need for Robots
- 1.2 First Responder Robot Border Patrol
- 1.2.1 Border Patrol and Homeland Security
- 1.3 Delivering Robotic Capabilities to Border Patrol Teams
- 1.4 Robot Scope
 - 1.4.1 First Responder Robot Applications
- 1.5 Army's G8 Futures office
 - 1.5.1 Delivering Capabilities to the Brigade Combat Teams
 - 1.5.2 Transition Between The Current Market And Where The Market Is Going
 - 1.5.3 Different Sizes of UGVs
- 1.6 Types of First Responder Robots
 - 1.6.1 Telerob Explosive Observation Robot and Ordnance Disposal
 - 1.6.2 QinetiQ North America Talon Robots Universal Disrupter Mount
- 1.6.3 General Dynamics Next-Generation CROWS II Increases First Responders Safety
 - 1.6.4 First Responder Unmanned Ground Vehicle from iRobot
- 1.7 UGV Enabling Technologies
 - 1.7.1 Sensor Processing
 - 1.7.2 Machine Autonomy
- 1.8 First Responder Robot Bandwidth
- 1.8.1 UGV Follow-Me Capability



- 1.8.2 Communications Bandwidth
- 1.8.3 Battery Power
- 1.8.4 Combination Of Batteries Linked To Onboard Conventional Diesel
- 1.9 SUGVs
 - 1.9.1 Mid-Size Category UGV
 - 1.9.2 Large UGV
 - 1.9.3 Ground Combat Vehicle
 - **1.9.4 TARDEC**
- 1.9.5 Tacom
- 1.10 Security Teams Advanced Defense Technologies

2. FIRST RESPONDER, HOMELAND SECURITY, AND LAW ENFORCEMENT ROBOT MARKET SHARES AND FORECASTS

- 2.1 First Responder, Homeland Security, and Law Enforcement Robots Market Driving Forces
 - 2.1.1 Homeland Security And Police Ground Robots
 - 2.1.2 Robots Operate Independently
- 2.2 Homeland Security Law Enforcement And First Responder Ground Robots Market Shares
 - 2.2.1 iRobot Surveillance Robots
 - 2.2.2 General Dynamics Robotic Systems (GDRS)
 - 2.2.3 Northrop Grumman
 - 2.2.4 Thales Group Mini UAV and UGVs
 - 3.1.1 iRobot Research/iRobot Collaborative Systems
- 2.2.5 Energid/Mitsubishi Next-Generation Robot for Nuclear Power Plant Heat Exchanger Tube Inspection
- 2.2.6 BLACK-I Antiterrorist ROBOTICS
- 2.3 First Responder, Homeland Security, And Law Enforcement Robots Market Forecasts
- 2.3.1 Homeland Security and First Responder Robot Market Forecasts By Size: Tactical, Small, and Medium
 - 2.3.2 Tactical First Responder Robot Market Forecasts,
- 2.3.1 Small First Responder Type Robot Market Forecasts, Dollars, Worldwide, 2012-2018
- 2.3.2 Mid Size First Responder Robot Market Forecasts, Dollars, Worldwide, 2012-2018
- 2.3.3 Communications And Collaboration Robot Support Converge To Enable First Response



- 2.4 Building a Culture of Preparedness
 - 2.4.1 First Responder Robot Market Segment Forecasts
 - 2.4.2 First Responder Robots Prevent And Disrupt Terrorist Attacks
- 2.4.3 Robots Emerge As Part Of Critical Security and Emergency Response Infrastructure
- 2.4.4 First Responder Robot Platforms, Cameras, Grippers, And Sensor Combinations
- 2.4.5 Worldwide First Responder Robot Market Forecasts, Segments
- 2.5 Police Actions Against Terrorists Replace Wars In The New Global Economy
 - 2.5.1 First Responder Robots For Challenging Missions
 - 2.5.2 QinetiQ's/Foster-Miller Talon First Responder Robot
 - 2.5.3 Telerob Sensor Platform
 - 2.5.4 Small, Maneuverable First Responder Robots
 - 2.5.5 iRobot PackBot Scout
 - 2.5.6 iRobot PackBot Explorer
- 2.5.7 QinetiQ North America's Dragon Runner Robot Delivered to Mesa AZ SWAT

Team

- 2.5.8 Application Scope
- 2.5.9 U.S. First responder Robots Key to Iraq Surge Success
- 2.6 First responder Robot Regional Market Analysis
- 2.6.1 iRobot Looks To Expand in Latin America and China

3. FIRST RESPONDER PRODUCT DESCRIPTION

- 3.1 Energid Technologies Nuclear Power Plant Robots
- 3.1.1 Energid/Mitsubishi Heavy Industries Next-Generation Robot for Nuclear Power Plant Heat Exchanger Tube Inspection
- 3.2 BLACK-I Antiterrorist ROBOTICS
- 3.3 Army Intelligence Exponent Agile Remote Controlled Robots
- 3.4 iRobot Surveillance Robots
 - 3.4.1 iRobot Research/iRobot Collaborative Systems
 - 3.4.2 iRobot LANdroids Robot
 - 3.4.3 iRobot IOD Robot Detection and Prevention
 - 3.4.4 iRobot First Responders Controls
 - 3.4.5 iRobot Daredevil
 - 3.4.6 iRobot 500 PackBot with Mapping Kit
 - 3.4.7 iRobot Advanced Platforms
 - 3.4.8 iRobot RedOwl: Multi-Sensor Sniper Detection and Targeting
 - 3.4.9 iRobot Nostra: Power System Condition Monitoring and Prognostics
 - 3.4.10 iRobot Health Monitoring and Vehicle Self-Diagnosis for iRobot PackBot EOD



- 3.4.11 iRobot SUGV
- 3.4.12 iRobot and Boeing SUGV (Small Unmanned Ground Vehicle)
- 3.5 Thales Group Mini UAV and UGVs
 - 3.5.1 Thales Group Ground Alerter
 - 3.5.2 Thales Group Ground Master 400 (GM 400)
 - 3.5.3 Thales Group Ground Smarter 1000
- 3.6 QinetiQ/Foster Miller TALON
- 3.7 Allen Vanguard Remotely Operated Vehicles
 - 3.7.1 Allen Vanguard Digital Vanguard ROV
- 3.8 iRobot Semi-Autonomous Operations: Wayfarer
 - 3.8.1 iRobot 110 FirstLook Small, Throwable Robot
- 3.9 BAE Systems Ant Size Robot
 - 3.9.1 BAE Systems Unmanned Ground Vehicles
 - 3.9.2 BAE Systems Armed Robotic Vehicle
- 3.10 Kuchcera Defense Systems Under Vehicle Inspection Platform
- 3.11 Boston Dynamics RHex
 - 3.11.1 Boston Dynamics
 - 3.11.2 Boston Dynamics BigDog Rough-Terrain Robot
- 3.12 Recon Robotics Throwbot
- 3.13 Omnitech Toughbot
- 3.14 Hydrema Joint Stock Co. Mine Area Clearance Equipment
- 3.15 Innovative Response Technologies Remote Ordnance Management System Supervision Over Technical Infrastructure
- 3.16 Allen Vanguard 2G Command Console
- 3.17 General Dynamics Robotic Systems (GDRS)
 - 3.17.1 General Dynamics Robotic Systems' Autonomous Navigation System (ANS)
 - 3.17.2 General Dynamics Robotic Systems
- 3.17.3 General Dynamics Robotic Systems (GDRS) Tactical Autonomous Combat Chassis
 - 3.17.4 General Dynamics Robotic Systems' Autonomous Navigation System (ANS)
- 3.17.5 General Dynamics Mobile Detection, Assessment, and Response System
- 3.18 Northrop Grumman
 - 3.18.1 Northrop Grumman Andros
 - 3.2.2 Northrop Grumman Caliber Robot Unmanned Ground Security Vehicle
 - 3.2.3 Northrop Grumman Caliber T5 is a small EOD and SWAT Robot.
 - 3.18.4 Northrop Grumman Remotec Wheelbarrow Mk9
 - 3.18.5 Northrop Grumman Robot Products
 - 3.18.6 Northrop Grumman Remote Ordnance Management System (ROMOTEC)
 - 3.18.7 Northrop Grumman Unmanned Ground Vehicles



3.18.8 Northrop Grumman Wheelbarrow - Reach and Payload Capability At A Distance

- 3.18.9 Northrop Grumman Wheelbarrow's Future
- 3.19 Carnegie Mellon Gladiator TUGV
 - 3.19.1 Carnegie Mellon Dragon Runner
- 3.20 Gostai
 - 3.20.1 Gostai Jazz Security Autonomous
 - 3.20.2 Gostai Jazz Security Advanced Features
 - 3.20.3 Gostai Jazz Security
 - 3.20.4 Gostai Jazz Security Checking On A Place
 - 3.20.5 Gostai Jazz Security Instead Of Fixed Video Surveillance Cameras
 - 3.20.6 Jazz Security Replaces A Watchman
 - 3.20.7 iRobot Collaborative Engagement Of Unmanned Systems
 - 3.20.8 iRobot Sentinel: A System for the Teleoperated Control of Mobile Robots

4. FIRST RESPONDER ROBOT TECHNOLOGY

- 4.1 First Responder Robot Technology Enablers
 - 4.1.1 First Responder Robot Logistics
- 4.2 MRAP ATV: Requirements and Contenders
- 4.3 First Responder Robot Enabling Technology
- 4.4 Intel Integrated Circuit Evidence-Based Innovation
 - 4.4.1 Open Robotic Control Software
 - 4.4.2 First Responder Robot Key Technology
 - 4.4.3 PC-Bots Visual Simultaneous Localization & Mapping
- 4.5 Advanced Robot Technology: Navigation, Mobility, And Manipulation
 - 4.5.1 Robot Intelligence Systems
 - 4.5.2 Real-World, Dynamic Sensing
- 4.6 User-Friendly Interfaces
 - 4.6.1 Tightly-Integrated, Electromechanical Robot Design
- 4.7 Field Based Robotics Iterative Development
 - 4.7.1 Next-Generation Products Leverage Model
 - 4.7.2 Modular Robot Structure And Control
 - 4.7.3 Lattice Architectures
 - 4.7.4 Chain/Tree Architectures
 - 4.7.5 Deterministic Reconfiguration
 - 4.7.6 Stochastic Reconfiguration
 - 4.7.7 Modular Robotic Systems
- 4.8 Intel First responder Robot Cultivating Collaborations



- 4.9 Hitachi Configuration Of Robots Using The SuperH Family
 - 4.9.1 Hitachi Concept of MMU And Logic Space
 - 4.9.2 Robotic Use of Solid State Thin Film Lithium-Ion Batteries
- 4.10 Network Of Robots And Sensors
- 4.10.1 Sensor Networks Part Of Research Agenda
- 4.10.2 Light Sensing
- 4.10.3 Acceleration Sensing
- 4.10.4 Chemical Sensing
- 4.11 First Responder Robot Technology Functions
- 4.12 Carbon Nanotube Radio
- 4.13 First Responder Robot Funded Programs
 - 4.13.1 Army Brigade Combat Team Modernization
 - 4.13.2 XM1216 Small Unmanned Ground Vehicle (SUGV)
 - 4.13.3 UUV Sub-Pillars
 - 4.13.4 Hovering Autonomous Underwater Vehicle (HAUV)
 - 4.13.5 Alliant
 - 4.13.6 ATSP is a Government-wide contracting vehicle
 - 4.13.7 Quick, efficient contracting vehicle
 - 4.13.8 Facilitates technology and insertion into fielded systems
 - 4.13.9 Access to all Northrop Grumman sectors
- 4.14 iRobot Technology
 - 4.14.1 iRobot AWARE Robot Intelligence Systems
 - 4.14.2 iRobot Real-World, Dynamic Sensing.
 - 4.14.3 iRobot User-Friendly Interface
 - 4.14.4 iRobot Tightly-Integrated Electromechanical Design.
- 4.15 Evolution Robotics Technology Solutions Evolution Robotics Example Applications

5 FIRST RESPONDER AND SECURITY ROBOT COMPANY PROFILES

- 5.1 AB Precision (Poole) Ltd
 - 5.1.1 AB Precision (Poole) Ltd Dragon (ABL900) de-armer
 - 5.1.2 AB Precision (Poole) Ltd Limpet Mine Disposal Equipment
 - 5.1.3 AB Precision (Poole) Ltd IED disruptor devices
 - 5.1.4 AB Precision (Poole) Ltd Recoilless disruptors
 - 5.1.5 AB Precision (Poole) Ltd Explosive Ordnance Disposal (EOD) equipment
- 5.2 Allen Vanguard
 - 5.2.1 Allen Vanguard R&D
- 5.2.2 Allen-Vanguard Introduces Modular New EOD Tactical Suit System For Mobile Counter-IED



5.3 BAE System

- 5.3.1 BAE Systems Organization
- 5.3.2 BAE Systems Performance
- 5.3.3 BAE Systems Key Facts
- 5.3.4 BAE Systems Strategy
- 5.3.5 BAE Systems Operational Framework
- 5.3.6 Key Performance Indicators (KPIs)
- 5.3.7 BAE Systems Risk Management
- 5.3.8 BAE Systems Orders
- 5.3.9 BAE Systems Received \$313 Million Contract for Continued Research and Development of PIM
- 5.3.10 BAE Systems' Paladin Integrated Management
- 5.3.11 BAE Systems Awarded £46m Contract To Support Royal Navy's Type 45 Sampson Radars
- 5.4 Beijing Defense
 - 5.4.1 Beijing Defense Counter IED products
 - 5.4.2 Beijing Defense EOD and IED Disposal Equipment
 - 5.4.3 Beijing Defense Bomb Search And Detection Systems
- 5.5 Black I Robotics
- 5.6 Boston Dynamics
- 5.7 Carnegie Mellon University
 - 5.7.1 Carnegie Mellon School of Computer Science (SCS)
- 5.8 Chemring EOD Limited
 - 5.8.1 Chemring EOD Limited Initiation Systems/Exploders
 - 5.8.2 Chemring EOD Limited ROV Integration Packages
- 5.8.3 Chemring EOD Limited Security: VehicleScan Under Vehicle Surveillance Systems
- 5.9 DCD-DORBYL (Pty) Ltd)/RSD (the Rolling Stock and Defense Division
 - 5.9.1 RSD Combat-Proven Landmine Detection Systems
 - 5.9.2 RSD Ballistic Protection For Peacekeeping And Defense Operations
 - 5.9.3 RSD Engineering For Various Defense Environments And Scenarios
- 5.10 Ditch Witch
- 5.11 Energid
- 5.12 First-Response Robotics
- 5.13 General Dynamics
 - 5.13.1 General Dynamics Revenue
 - 5.13.2 General Dynamics Rifleman Radio and GD300 Go to Afghanistan with U.S.

Army's 75th Ranger Regiment

5.13.3 General Dynamics Light Tactical Vehicles



- 5.13.4 General Dynamics Light Wheeled Armored Vehicles
- 5.13.5 General Dynamics Medium Wheeled Armored Vehicles
- 5.13.6 General Dynamics Infantry Fighting Vehicles/Medium Combat Vehicles
- 5.13.7 General Dynamics Light Combat Vehicles
- 5.13.8 General Dynamics Revenue
- 5.13.9 General Dynamics Mobile Military Bridge Systems
- 5.13.10 General Dynamics MTB Modular Lightweight Bridge
- 5.13.11 General Dynamics European Land Systems
- 5.13.12 General Dynamics European Land Systems (GDELS)
- 5.14 Gostai
- 5.15 iRobot
 - 5.15.1 iRobot Role In The Robot Industry
 - 5.15.2 iRobot Robots
 - 5.15.3 iRobot Home Cleaning Robots
 - 5.15.4 iRobot SUGV (Small Unmanned Ground Vehicle).
 - 5.15.5 iRobot FirstLook
 - 5.15.6 iRobot Revenue Third-Quarter 2011
 - 5.15.7 iRobot Government and Industrial 2011
 - 5.15.8 iRobot \$7.4 Million Order for Small Unmanned Ground Vehicles
 - 5.15.9 iRobot Looks To Expand in Latin America and China
 - 5.15.10 iRobot PackBots
- 5.16 Kongsberg
 - 5.16.1 Kongsberg Key Orders for Maritime
 - 5.16.2 Kongsberg Key Figures
- 5.17 Kuchcera Defense Systems
- 5.18 Lockheed Martin
 - 5.18.1 Lockheed Martin Fourth Quarter and Full Year 2011 Results
 - 5.18.2 Lockheed Martin Segment Results 2011
 - 5.18.3 Lockheed Martin Aeronautics Segment Revenue
 - 5.18.4 Lockheed Martin SYMPHONY Improvised Explosive Device Jammer Systems
 - 5.18.5 Lockheed Martin Aeronautics Revenue
 - 5.18.6 Lockheed Martin Electronic Systems
 - 5.18.7 Lockheed Martin Electronic Systems Net sales
 - 5.18.8 Lockheed Martin Electronic Systems Segment Revenue
 - 5.18.9 Lockheed Martin Information Systems & Global Solutions
 - 5.18.10 Lockheed Martin Space Systems
 - 5.18.11 Lockheed Martin Corporation's Business Segment
 - 5.18.12 Lockheed Martin Delivers Fourth Upgraded CBP P-3 Orion In Record Time
- 5.19 Mesa Associates



- 5.19.1 Mesa Robotics
- 5.20 Northrop Grumman
 - 5.20.1 Northrop Grumman Supplies Marine Navigation Equipment
 - 5.20.2 Northrop Grumman Recognized by UK Ministry of Defense for Role in

Supporting Sentry AWACS Aircraft During Military Operations in Libya

5.20.3 Northrop Grumman Corporation subsidiary Remotec Inc. Upgrade the U.S. Air

Force Fleet of Andros HD-1 5.20.4 Northrop Grumman NAV CANADA Supplier

- 5.20.5 Northrop Grumman Electronic Systems Segment
- 5.21 Pearson Engineering
- 5.22 QinetiQ North America
 - 5.22.1 QinetiQ North America
 - 5.22.2 QinetiQ Starts Spinoff from United Kingdom Ministry of Defense, Defense

Evaluation and Research Agency (DERA)

- 5.22.3 QinetiQ/Foster Miller
- 5.22.4 QinetiQ/Foster Miller Financial Position
- 5.22.5 QinetiQ North America Order for 100 Dragon Runner 10Micro Robots
- 5.22.6 QinetiQ/Automatika
- 5.22.7 QinetiQ Customer Base
- 5.22.8 QinetiQ Revenue
- 5.23 re
- 5.24 Recon Robotics
- 5.25 TechnoRobot
- 5.26 Telerob
- 5.27 Thales Group
 - 5.27.1 Thales Core Businesses
 - 5.27.2 Thales: A Global Player
 - 5.27.3 Thales Facts and Figures
 - 5.27.4 Thales Innovation
 - 5.27.5 Thales Key Technology Domains
 - 5.27.6 Thales Open Research
 - 5.27.7 Thales Stance on Environment
 - 5.27.8 Thales Processes
 - 5.27.9 Thales Product design
 - 5.27.10 Thales Site Management
 - 5.27.11 Thales Alenia Space Integration Of Service Module For The Fourth ATV
 - 5.27.12 Thales Sonar 'Excels' In Anti-Submarine Warfare Exercise
- 5.28 Vecna Technologies
- 5.29 Military Robot Companies



List Of Tables

LIST OF TABLES AND FIGURES

Table ES-1 Homeland Security And Police Robots Market Driving Forces

Figure ES-2 Homeland Security and First Responder Robots Market Shares, Dollars, Worldwide, 2011

Figure ES-6 First Responder Type Robot Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018

Table 1-1 First Responder Robot Applications

Table 1-2 First Responder Armed Robotic Applications

Table 1-3 What the First Responder Wants In Robotic Systems

Figure 1-4 Telerob Explosive Observation Robot and Ordnance Disposal Unit

Figure 1-5 Telerob Explosive Ordnance Disposal EOD System For Operation In Confined Areas

Figure 1-6 QinetiQ North America TALON Robots Universal Disruptor Mount (UDM)

Figure 1-7 Next-Generation General Dynamics CROWS II

Figure 1-8 Organization for Combating Terrorism: Technology Support Office

Table 2-1 Homeland Security And Police Robots Market Driving Forces

Figure 2-2 Homeland Security and First Responder Robots Market Shares, Dollars, Worldwide, 2011

Table 2-3 Homeland Security and First Responder Robot Market Shares, Dollars, Worldwide, 2011

Figure 2-4 iRobot 210 Negotiator

Table 2-5 iRobot 510 Packbot Characteristics

Figure 2-6 First Responder Type Robot Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018

Figure 2-7 First Responder Robots Market Forecasts, Shipments, Units, Worldwide, 2012-2018

Table 2-8 First Responder Type Robot Shipment Market Forecasts, Units and Dollars, Worldwide, 2012-2018

Table 2-9 Homeland Security and First Responder Robot Market Forecasts, Shipments, Dollars and Units, Worldwide, 2012-2018

Figure 2-10 Small First Responder Robot Market Forecasts, Dollars, Worldwide, 2010-2016

Figure 2-11 Tactical First Responder Robot Market Forecasts, Units, Worldwide, 2012-2018

Figure 2-12 Small First Responder Type Robots Under 31 Pounds Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018



Figure 2-13 Mid Size First Responder Type Robots 400 to 2,500 Pounds Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018

Table 2-14 First Responder Type Robot Shipment Segment Market Forecasts: Units and Dollars, Worldwide, 2012-2018

Figure 2-15 Types of Events Triggering Need For First Responder Robots

Figure 2-16 Rifle Mounted Robot for First Responder Situations

Figure 2-17 First Responder Robot Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018

Table 2-18 First Responder Robot Market Segments, Worldwide, 2009

Table 2-19 First Responder Robot Market Segments, Worldwide, 2016

Table 2-20 First Responder Robot Market Forecasts, Worldwide, 2010-2016

Figure 2-21 Law Enforcement Robot Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018

Figure 2-22 Homeland Security Robot Market Forecasts, Shipments, Dollars,

Worldwide, 2012-2018

Figure 2-23 Border Patrol Robot Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018

Figure 2-25 Security Robot Market Forecasts, Shipments, Dollars, Worldwide, 2012-2018

Figure 2-26 U.S. First responder Robot for 'Surge'

Figure 2-27 Homeland Security and First Responder Robot Regional Market Segments, 2011

Table 2-28 Homeland Security and First Responder Robot Regional Market Segments, 2011

Figure 3-1 Exponent Agile Remote Controlled Robots

Figure 3-2 iRobot 210 Negotiator

Table 3-3 iRobot 210 Negotiator Controls

Table 3-4 iRobot 210 Negotiator Characteristics

Table 3-5 iRobot HazMat Technicians Controls

Table 3-6 iRobot 510 Packbot Characteristics

Table 3-7 iRobot First Responders Controls

Table 3-8 iRobot 510 Packbot Characteristics

Table 3-9 iRobot Combat Engineers Controls

Table 3-10 iRobot 510 Packbot Characteristics

Table 3-11 iRobot Daredevil Goals

Table 3-12 iRobot 500 PackBot Needs

Table 3-13 iRobot 500 PackBot Goals

Table 3-14 iRobot RedOwl Goals

Table 3-15 iRobot Nostra Goals



Table 3-16 iRobot Health Monitoring Goals

Figure 3-17 iRobot SUGV

Figure 3-18 SUGV (Small Unmanned Ground Vehicle)

Table 3-19 iRobot SUGV Characteristics

Table 3-20 Thales Group Ground Master 400 Features

Table 3-21 Thales Group Ground Master 400 Facts

Table 3-22 Thales Group Ground Smarter 1000 Features

Figure 3-23 Thales Group Eurobot Ground Prototype (EGP)

Figure 3-24 QinetiQ World-beating robots designed to do the dirty work

Table 3-25 QinetiQ Family Of Robots Positioning

Table 3-26 QinetiQ Portfolio

Table 3-27 Allen Vanguard Digital Vanguard ROV Features

Table 3-28 iRobot Semi-Autonomous Operation Goals

Figure 3-29 iRobot 110 FirstLook

Table 3-30 iRobot 110 First Look Controls

Table 3-31 iRobot 110 First Look Characteristics

Figure 3-32 BAE Homeland security Robot in Development

Figure 3-33 BAE Systems Armed Robotic Vehicle

Figure 3-34 Kuchcera Defense Systems Under Vehicle Inspection Platform

Figure 3-35 Boston Dynamics RiSE: The Amazing Climbing Robot

Figure 3-36 Boston Dynamics SquishBot - Advanced Chemistry Robot That Inches,

Climbs and Deforms

Figure 3-37 Boston Dynamics RiSE: The Amazing Climbing Robot

Figure 3-38 Boston Dynamics Robotics

Figure 3-39 Boston Dynamics LS3 - Legged Squad Support Systems

Figure 3-40 Boston Dynamics BigDog - Rough-Terrain Robot

Figure 3-41 Boston Dynamics LittleDog - The Legged Locomotion Learning Robot

Figure 3-42 Boston DynamicsPETMAN - BigDog gets a Big Brother

Figure 3-43 Recon Robotics Throwbot

Figure 3-44 Omnitech Toughbot

Figure 3-45 Hydrema Joint Stock Co. Mine Area Clearance Equipment

Figure 3-46 Innovative Response Technologies Remote Ordnance Management System

Table 3-47 Benefits of General Dynamics DRS Robotics Systems to the Soldier

Figure 3-48 General Dynamics Robotic Systems (GDRS) Advanced Technology

Positioning

Figure 3-49 General Dynamics TAC-C Robot

Figure 3-50 Next-Generation General Dynamics Robots

Table 3-51 General Dynamics Near Autonomous Unmanned Systems (NAUS) –



Advanced Technology Objective (NAUS-ATO)

Figure 3-52 General Dynamics Mobile Detection, Assessment, and Response System

Figure 3-53 Northrop Grumman Andros

Figure 3-54 Northrop Grumman REMOTEC T5 CALIBER

Figure 3-55 Northrop Grumman Remotec Wheelbarrow Revolution

Figure 3-56 Northrop Grumman REMOTEC Mk3 CALIBER

Figure 3-57 Northrop Grumman Remote Ordnance Management System (ROMOTEC)

Figure 3-58 Northrop Grumman Unmanned Ground Vehicles

Figure 3-59 Carnegie Mellon Gladiator Tactical Unmanned Ground Vehicles

Figure 3-60 Carnegie Mellon Dragon Runner Unmanned Ground Vehicles

Figure 3-61 Gostai Telesurveillance Robot

Figure 3-62 Gostai - A watchman that never sleeps

Figure 3-63 Gostai Jazz Security

Table 3-64 Allen Vanguard 2G Command Console Features

Table 3-65 iRobot Collaborative UGV Goals

Table 3-66 iRobot Sentinel

Table 3- 67 iRobot Sentinel Goals

Figure 4-1 First Responder Robot Technology Enablers

Table 4-2 First Responder Robot Technology Characteristics

Figure 4-3 First Responder Ground Robot Technology Enablers

Table 4-4 US Army First Responder Robot Logistics Positioning

Figure 4-5 Robot Systems Associated with Force Application Description

Figure 4-6 Robotic Performance Characteristics

Table 4-7 First Responder Robotics Enabling Technology

Table 4-8 First Responder Robots Development Challenges

Table 4-9 First Responder Robot Integrated Circuit-Based Innovation Functions

Table 4-10 First Responder Robot Key Technology

Table 4-11 Robot Communications Key Technology

Table 4-12 First Responder Robot Key Navigation Technologies

Table 4-13 Human-Robot Interaction

Table 4-14 Visual Simultaneous Localization & Mapping Functions Relevant to Robotics

Figure 4-15 Hitachi Modular Robot Configuration

Table 4-16 First Responder Robot Key Product Technology Factors

Table 4-16 (Continued) First Responder Robot Key Product Technology Factors

Table 4-17 First Responder Robot Technology Functions

Table 4-17 (Continued) First Responder Robot Technology Functions

Table 4-18 Missions (UUV "Sub-Pillars") In Priority Order

Figure 4-19 UUVMP Vision

Table 4-20 Alliant Features:



Table 4-20 (Continued) Alliant Features:

Figure 4-21 Evolution Robotics Technology Solutions

Figure 4-22 Evolution Robotics Object Recognition

Table 4-23 Evolution Robotics Applications

Table 5-1 Global Leader in Counter-IED

Table 5-2 Allen Vanguard Corporate Brands

Table 5-3 Allen Vanguard R&D Directions

Table 5-4 BAE Systems Company Positioning

Figure 5-5 BAE Systems Strategy

Figure 5-6 BAE Systems Contract for PIM

Table 5-7 Beijing Defense Key Business Areas

Table 5-8 Chemring EOD Limited Initiation Systems/Exploders

Figure 5-9 General Dynamics Divisions

Figure 5-10 General Dynamics Eagle

Figure 5-11 General Dynamics Duro

Figure 5-12 General Dynamics Piranha

Figure 5-13 General Dynamics Pandur 6 x

Table 5-14 General Dynamics Pandur 6 x 6 Features

Figure 5-15 General Dynamics Pandur 8 x

Table 5-16 General Dynamics Pandur 8 x 8 Features

Figure 5-17 General Dynamics Piranha

Figure 5-18 General Dynamics Ascod

Figure 5-19 General Dynamics SK

Table 5-20 General Dynamics SK 105 Features

Figure 5-21 General Dynamics M3 – A Synergy of Experience and Modern Technology

Figure 5-22 General Dynamics IRB – Combat Proven Bridge Equipment

Table 5-23 General Dynamics Bridge Equipment Features

Figure 5-24 General Dynamics REBS – The Bridge for the Future Army

Figure 5-25 General Dynamics IAB – A light weight bridge for several uses

Figure 5-26 General Dynamics EAGLE Armored Patrol Vehicle

Figure 5-27 Kongsberg Key Orders for Maritime

Figure 5-28 Kongsberg Crows Initiative

Figure 5-29 Lockheed Martin Segment Positioning

Figure 5-30 Lockheed Martin Aeronautics Segment Positioning

Figure 5-31 Lockheed Martin Aeronautics Segment Portfolio

Figure 5-32 Lockheed Martin Aeronautics C130 Worldwide Airlift

Figure 5-33 Lockheed Martin Aeronautics Falcon Fighter

Figure 5-34 Lockheed Martin Electronic Systems Portfolio

Figure 5-35 Lockheed Martin Electronic Systems Segment



Figure 5-36 Lockheed Martin Electronic Systems Segment Revenue

Figure 5-37 Lockheed Martin Information Systems Segment Revenue

Figure 5-38 Lockheed Martin Space Systems Segment Revenue

Figure 5-39 Northrop Grumman Systems Segments

Figure 5-40 Northrop Grumman Portfolio

Figure 5-41 Northrop Grumman Segment Revenue Growth

Figure 5-42 Northrop Grumman Aerospace Systems Segment

Figure 5-43 Northrop Grumman Electronic Systems Segment

Figure 5-44 QinetiQ Dragon Runner Urban Operations Rugged Ultra-Compact,

Lightweight And Portable Reconnaissance Robot

Table 5-45 QinetiQ Customer Base

Figure 5-46 Re2 Open Architecture for Robots

Figure 5-47 Technorobot

Figure 5-48 Technorobot Collaborations

Table 5-49 Thales Key Technology Domains

Figure 5-50 Thales Measurable Environmental Targets

Table 5-51 Vecna Technologies hydraulic end effector Specifications



I would like to order

Product name: First Responder, Border Patrol, Homeland Security, Law Enforcement, and Security

Robots: Market Shares, Strategies, and Forecasts, Worldwide, 2012 to 2018

Product link: https://marketpublishers.com/r/FBF3EF8DDDFEN.html

Price: US\$ 3,700.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/FBF3EF8DDDFEN.html