

# **Surgical Assist, Campus, Personal Services, and Pharmaceutical Robot Market Shares, Market Strategies, and Market Forecasts, 2008-2014**

<https://marketpublishers.com/r/S3F02ECB7E9EN.html>

Date: March 2008

Pages: 336

Price: US\$ 3,300.00 (Single User License)

ID: S3F02ECB7E9EN

## **Abstracts**

During a robot assisted surgical procedure, the patient-side cart is positioned next to the operating table with the electromechanical arms arranged to provide access to the initial ports selected by the surgeon. Metal tubes attached to the arms are inserted through the ports, and the cutting and visualization instruments are introduced through the tubes into the patient's body.

Next generation intuitive surgery is implemented with robotic devices. The robotic surgical systems are designed to provide the surgeon with the intuitive control, range of motion, fine tissue manipulation capability, and 3-D vision characteristic of open surgery. Systems work by simultaneously allowing the surgeon to work through the small ports of MIS. All this is accomplished in an intuitive manner, in the same way that the movements of a surgeon's hands in open surgery are entirely intuitive.

The surgeon performs the procedure while sitting at a console, manipulating the instrument controls and viewing the operation through a vision system. When a surgeon needs to change an instrument the instrument is withdrawn from the surgical field using the controls at the console. This is done many times during an operation.

People are making existing MIS procedures easier, safer and more cost-effective than the alternative methods. The strategy is to broaden the number of procedures performed using a robotic surgical system and to educate surgeons, hospitals and patients as to the benefits of robotic surgery. Key elements of strategy include a focus on key procedures. Procedure marketing efforts are primarily focused within four surgical specialties: urologic surgery, gynecologic surgery, cardiothoracic surgery, and general surgery.

Systems pose a challenge to be relevant and individualized to the special needs of each user. Social behavior plays a fundamental role in assisting all people, including people with special needs. The robot's physical embodiment, its physical presence and appearance, and its shared context with the user, are fundamental for creating a time-extended engaging relationship with the user.

An adaptive, reliable and user-friendly hands-off robot needs to provide an engaging and motivating customized therapy protocol to participants in school, clinic, and ultimately, home environments.

It needs to establish a very complex and complete human-robot relationship. Robots must be endowed with human-oriented interaction skills and capabilities, exhibit context and user-appropriate social behavior, and focus attention and communication on the user in order to help the user achieve specific goals. Different systems developed in lab research that integrates social elements and systems to form therapeutic programs that monitor, encourage, and assist users.

Stroke rehabilitation has traditionally relied on simple training equipment dedicated for a particular purpose. The advance of computing and robotics techniques provides a chance to improve on several aspects of stroke rehabilitation. Computer control can allow therapies to be customized to the individual need. Systems can be designed to be available when ever needed by the patient.

It may be possible to provide home based systems that can continue to give regular therapy sessions once the patient is discharged from hospitals. Providing intelligent therapy assistance means that there may be a chance to make objective recordings of the therapy session for subsequent analysis. In this process the traditional task of the neuro-rehabilitation specialists changes to mimic the advances brought by video analysis of games typical of professional sporting teams (particularly the teams that win).

The iRobot ConnectR is a way to stay connected to family and friends even when apart. ConnectR is used in pilot programs initially. ConnectR robots are available directly from iRobot as part of a pilot program. ConnectR Pilot Program costs are \$199, afterward the product sells for \$500. These markets will grow slowly, security applications are most likely to represent early adopter users.

Worldwide robotically-assisted surgery systems equipment shipment markets are set to

have rapid growth. Markets at \$626.5 million in 2007 are anticipated to reach \$1 billion in 2008 and are forecast to go to \$14 billion by 2014. Growth comes because the technology is mature and the technology works. It took a long, long time for the markets to evolve, but now the MIS surgeries are accurate and less invasive than alternative surgical methods, creating market opportunity.

A plethora of healthcare robotics markets are emerging including remote presence, security, visiting robots, services robots, and pharmaceutical robots. Robots are different from stationary devices because they have a microprocessor which can be programmed and they can move around. They have sensors.

## Contents

### **SURGICAL, HEALTHCARE, ASSISTIVE, AND CAMPUS ROBOT EXECUTIVE SUMMARY**

Healthcare Robot Market Driving Forces

    Robotic-Assisted Minimally Invasive Surgery

Robotic-Assisted Minimally Invasive Surgery Market Shares

Robotic-Assisted Minimally Invasive Surgery Market Forecasts

### **1. SURGICAL, HEALTHCARE, ASSISTIVE, AND CAMPUS ROBOTS MARKET DESCRIPTION AND MARKET DYNAMICS**

1.1 Robotic Surgical System

    1.1.1 Market Strategy for the Robotic Surgical System

    1.1.2 Focus on Key Institutions

1.2 Focus on Leading Surgeons to Drive Rapid and Broad Adoption

    1.2.1 Maintain Market Leadership

    1.2.2 Develop Industry Alliances

    1.2.3 Increasing Patient Awareness

1.3 Clinical Applications For Technology

1.4 Elder Assistance Robot Market Strategy

1.5 Medical / Surgical Delivery Robots

1.6 Assistive Technology

1.7 Rehabilitation Robots

1.8 Neuroscience Unveiling The Basic Mechanisms Of Neurogenesis And Neuroplasticity

    1.8.1 Neuro-Developmental Engineering

    1.8.2 Intelligent Rehabilitation

    1.8.3 Bilateral and Unilateral ADL-focused Robot Therapies

    1.8.4 Robotic Rehabilitation Assistive Technology

    1.8.5 Robots, Aged Care, And Emotional Bonding With Machines

    1.8.6 InTouch Health Remote Presence

    1.8.7 InTouch Platforms Integrate Seamlessly With da Vinci Systems

    1.8.8 In Touch Health Remote Presence RP-7s Robot Doctors

1.9 Educational Robots For Children in Hospitals

1.10 Hospital Robots

1.11 Mechanized Couriers

    1.11.1 Man vs. Machine: Robots at Japanese Hospital

## 2. Surgical, Healthcare, Assistive, and Campus Robot Market Shares and Forecasts

### 2.1 Healthcare Robot Market Driving Forces

#### 2.1.1 Robotics Market Driving Forces

#### 2.1.2 Healthcare Robotics Enabling Technology

### 2.2 Robotic-Assisted Minimally Invasive Surgery

#### 2.2.1 Robotic-Assisted Minimally Invasive Surgery Market Driving Forces

#### 2.2.2 Robotic-Assisted Minimally Invasive Surgery Market Shares

#### 2.2.3 Next Generation Surgery— Intuitive Surgical da Vinci Surgery

#### 2.2.4 Robotic-Assisted Minimally Invasive Surgery Market Shares

#### 2.2.5 Intuitive Surgical da Vinci

#### 2.2.6 Intuitive Surgical Product Revenue

#### 2.2.7 Intuitive Surgical Service and Training Revenue

#### 2.2.8 Intuitive Instrument Movements

#### 2.2.9 Prosurgics EndoAssist Laparoscopic Camera Holding Robots

#### 2.2.10 Prosurgics Image-Guided Surgical Robots

#### 2.2.11 Prosurgics Robots Support Skilled Surgeons

#### 2.2.12 Prosurgics Surgical Robotics Return On Investment (ROI)

#### 2.2.10 Robotic-Assisted Minimally Invasive Surgery Market Forecasts

#### 2.2.13 Accuray, Hansen Medical, and Stereotaxis

#### 2.2.14 Robotic-Assisted Minimally Invasive Surgery Market Forecasts

### 2.3 Pharmaceutical Robots

#### 2.3.1 Pharmaceutical Robots Market Shares

#### 2.3.2

#### 2.3.6 Swisslog

#### 2.3.7 Pharmaceutical Robots Market Forecasts

#### 2.3.8 Growth Of The Pharmaceutical Industry

#### 2.3.9 Pharmaceutical Supply Channel Changes

#### 2.3.10 Pharmaceutical Legislative Developments

#### 2.3.11 Expiration of Patents for Brand Name Pharmaceuticals

#### 2.3.12 US Hospital Profile

### 2.4 Physician Remote Presence Robots

#### 2.4.1 Physician Remote Presence Robot Forecasts

#### 2.4.2 Remote Presence Technology Reduction In ICU Cost - Provide Positive ROI

#### 2.4.3 Robotic Tele-rounding Substantially Reduces Length Of Stay Providing Positive

#### ROI

#### 2.4.4 Number of Surgeries

#### 2.4.5 Physician Remote Presence Robot Market Forecasts

- 2.4.6 Reducing Hospitals Length of Stay
- 2.5 Hospital Robotic Remote Surveillance Market Forecasts
- 2.6 Hospital Courier Robot Market Forecasts
  - 2.6.1 Hospital Courier Robot Return On Investment (ROI).
- 2.7 Virtual Visiting Robot
  - 2.7.1 iRobot
- 2.8 Robots for Handicap Assistance Market Forecasts
  - 2.8.1 Aging of the Population
- 2.9 Robots for Campus Delivery
- 2.10 Pharmacy and Blood Work Robots for Healthcare
- 2.11 Healthcare Robotic Regional Market Analysis
  - 2.11.1 Intuitive Surgical Regional Market Segments
  - 2.11.2 Japan Positioned To Be Global Market Leader In Robotics
  - 2.11.3 Korea Global Leader In Robotics
  - 2.11.4 Healthcare Robotics in Japan

### **3. HEALTHCARE SURGICAL ROBOTS AND CAMPUS ROBOTS PRODUCT DESCRIPTION**

- 3.1 Healthcare Surgical Robots
- 3.2 Intuitive Surgical da Vinci® Robot-Assisted, Minimally Invasive Surgery
  - 3.2.1 Next Generation Surgery— Intuitive Surgical da Vinci Surgery
  - 3.2.2 Intuitive Surgical Intuitive Instrument Movements
  - 3.2.3 Intuitive Surgical Immersive 3-D Visualization
  - 3.2.4 Intuitive Surgical Immersive High-Definition 3-D Visualization
  - 3.2.5 Intuitive Surgical Teachable and Repeatable
  - 3.2.6 Intuitive Surgical Multi-Specialty Surgical Platform
  - 3.2.7 Intuitive Surgical Facilitates Difficult MIS Operations
  - 3.2.8 Intuitive Surgical's Products and Services
  - 3.2.9 Intuitive Surgical Surgeon's Console.
  - 3.2.10 Intuitive Surgical Patient-Side Cart
  - 3.2.11 Intuitive Surgical 3-D Vision System
  - 3.2.12 Intuitive Surgical EndoWrist Instruments and Intuitive Accessories
- 3.3 Carl Zeiss Medical Manipulator
- 3.4 Prosurgics
- 3.5 Hitachi
  - 3.5.1 AESOP Endoscope Positioner Product
- 3.6 Rehabilitation Robots
- 3.7 Robot-Assisted Motor Therapy

- 3.7.1 Basic Research In Neuroscience
- 3.7.2 Mechatronic Platforms for Early Diagnosis of Neuro-Developmental Autism Disorders
- 3.7.3 Stroke Rehabilitation
- 3.7.4 Audiovisual Displays Used To Present A Virtual Rehabilitation Environment
- 3.8 Human Interactive Robot
- 3.9 iRobot
  - 3.9.1 How iRobot ConnectR Works
- 3.10 Care-O-Bot Intelligent Assistance
  - 3.10.1 Care-O-bot Mobility Aid
- 3.11 Japanese Science and Technology Robot Interaction With Human Beings
  - 3.11.1 Paro Furry Seal Robot For Psychological Enrichment Of Humans In Daily Life
  - 3.11.2 Paro's Functions
- 3.12 MobileRobots
  - 3.12.1 Mobileeyes Graphic
  - 3.12.2 MobileRobots Uses:
- 3.13 Matsushita Electric Works, Ltd.
  - 3.13.1 MobileRobots Food Delivery and Security
- 3.14 Robotis / Bioloid Bipedal Robot Construction Kit
  - 3.14.1 Bioloid Motion Editor
  - 3.14.2 Hitec/Robonova-1
- 3.15 HiTec RoboNova-1
- 3.16 TAEJON\_D2E Robotics
- 3.17 Exact Dynamics Manus-Arm
- 3.18 Mobile Robots
  - 3.18.1 Cypress Computer Systems
  - 3.18.2 Technology Convergence
- 3.19 Aethon
- 3.20 AGVs Take On New Roles In Industry
- 3.21 Mopec Hospital Robot
  - 3.21.1 Mopec RoboCourier
- 3.22 Pyxis / HelpMate Robotics
  - 3.22.1 Pyxis Products
- 3.23 Aethon
  - 3.23.1 Aethon TUG™
  - 3.23.2 Aethon TUG Fast Delivery
  - 3.23.3 TUG
  - 3.23.4 Hard-working
  - 3.23.5 Cost-efficient



- 3.23.6 Nurses Have Greater Job Satisfaction
- 3.23.7 Greater ROI
- 3.23.8 Less runaround
- 3.23.9 Greater efficiency
- 3.23.10 Aethon HOMER™
- 3.24 In Touch Technologies
  - 3.24.1 InTouch Technologies RP-7™ Remote Presence Robotic System
  - 3.24.2 InTouch Health RP-7 Robot
  - 3.24.3 Surgical Procedure Taught Through Remote Presence
- 3.25 Robots In The Hospital
- 3.26 Cypress Computer Systems
  - 3.26.1 CCS Robotics
  - 3.26.2 CCS Robotics RoboSentry
  - 3.26.3 All RoboSentry™ and SpecIMinder™ platforms include Charging Dock, Tether, and MobileEyes Software.
- 3.27 Definitions
  - 3.27.1 Autonomous Mobile Robot
  - 3.27.2 24x7 Autonomous Operation
  - 3.27.3 Automatic Recharging
  - 3.27.4 802.11 Wireless Ethernet Communications
  - 3.27.5 PTZ Surveillance Camera
  - 3.27.6 4 Dimensional Audio
- 3.28 Cypress Robot
  - 3.28.1 CCS Robotics SpecIMinder Fully Autonomous Specimen Transport System
  - 3.28.2 All RoboSentry™ and SpecIMinder™ Platforms Include Charging Dock, Tether, and MobileEyes Software.
  - 3.28.3 SpecIMinder™ Overview
  - 3.28.4 SpecIMinder™ Technical Overview
  - 3.28.5 Application
  - 3.28.6 SpecIMinder™ Operational Overview
  - 3.28.7 Hospital Delivery Robot
  - 3.28.8 Remote Surveillance & Verification Platforms (RSVP)

#### **4. SURGICAL, HEALTHCARE, AND CAMPUS ROBOT TECHNOLOGY**

- 4.1 Robotic Surgical Clinical Applications
  - 4.1.1 Robotic Urologic Prostatectomy Surgery
  - 4.1.2 Robotic Gynecologic Surgery
  - 4.1.3 Robotic Myomectomy



- 4.1.4 Robotic Cardiothoracic Surgery
- 4.1.5 Robotic Internal Thoracic Artery Dissection
- 4.1.6 Robotic Thoracoscopy
- 4.1.7 Robotic Coronary Artery Bypass
- 4.1.8 Robotic General Surgery
- 4.2 AI Robot
  - 4.2.1 Korea Focusing On Creating A Growth Engine In Research & Development
- 4.3 Care-O-bot Robot Mechanics
  - 4.3.1 Care-O-bot Architecture
- 4.4 Government Regulation
  - 4.4.1 California Regulation
  - 4.4.2 International Regulation
- 4.5 Third Party Reimbursement

## **5. HEALTHCARE AND CAMPUS ROBOT COMPANY PROFILES**

- 5.1 Aethon
- 5.2 AIST / National Institute of Advanced Industrial Science and Technology and Japan Science and Technology
  - 5.2.1 AIST / Intelligent System (ISC)
- 5.3 AmerisourceBergen
- 5.4 Cardinal Health / Pyxis Corporation
  - 5.4.1 Cardinal Health
  - 5.4.2 Cardinal Health Revenue
  - 5.4.3 Healthcare Supply Chain Services Sector
  - 5.4.4 Cardinal Health agreement with Walgreens
  - 5.4.5 Clinical and Medical Products Sector
  - 5.4.6 Cardinal Health Segments
  - 5.4.7 Pyxis Acquisition / HelpMate Robotics
  - 5.4.8 Pyxis® Products
- 5.5 Cypress Computer Systems
- 5.6 Fraunhofer Institute for Manufacturing Engineering and Automation IPA
  - 5.6.1 Care-O-bot
- 5.7 Fujitsu
- 5.8 Hitachi
  - 5.8.1 Hitachi Ltd.
- 5.9 Honda
- 5.10 InTouch Technologies
- 5.11 Intuitive Surgical

- 5.11.1 Intuitive Surgical da Vinci Surgical Systems For Advanced Surgical Systems
- 5.11.2 Intuitive Surgical Beating Heart Bypass Procedure Through Small Ports
- 5.11.3 Intuitive Surgical daVinci Focus On Making Technology As Simple As Possible
- 5.11.4 Intuitive Surgical Revenue
- 5.11.5 Intuitive Surgical Product Revenue
- 5.12 iRobot
  - 5.12.1 iRobot Strategy
  - 5.12.2 iRobot Role In The FCS program
    - iRobot Strategic Alliances
    - iRobot and Deere & Company
    - iRobot and Clorox Company
    - iRobot Sales and Distribution Channels
    - iRobot Revenue
    - iRobot
    - iRobot Third Quarter 2007 Revenue
  - 5.12.3 iRobot Distribution
  - 5.12.4 iRobot \$8.8 Million U.S. Military Order for PackBot Robots
    - iRobot Gutter Cleaner
    - iRobot Communication Robot
    - iRobot ConnectR Pilot Program
    - iRobot NAVSEA \$19 Million for Bomb-Disposal Robots
    - iRobot Roomba Vacuum Cleaning Robots
    - iRobot Customer Service and Support
    - iRobot Marketing and Brand
- 5.13 LG Electronics
- 5.14 MicroDexterity Systems
- 5.15 Microsoft
- 5.16 MobileRobots
- 5.17 Mopec
  - 5.17.1 Mopec RoboCourier Smart Robotic Delivery Product
- 5.18 OmniCell
- 5.19 Primus Innovations
- 5.20 Prosurgics
- 5.21 Richard Wolf Medical Instruments
- 5.22 Ross-Hime Designs
- 5.23 Sinters SA
- 5.24 Swisslog
- 5.25 Terumo Medical
- 5.26 Toshiba

## 5.27 Zeiss

5.27.1 Carl Zeiss Medical Manipulator

5.27.2 Zeiss Developments for More Efficiency

5.27.3 Zeiss Focused on Growth

## List Of Tables

### LIST OF TABLES AND FIGURES

Table ES-1

Robotic-Assisted Minimally Invasive Surgery Market Driving Forces

Figure ES-2

Worldwide Robotic-Assisted Minimally Invasive Surgery (MIS) Market Shares, Shipment Dollars, 2007

Figure ES-3

Worldwide Robotically-Assisted Surgery Equipment Shipment Market Forecasts, Dollars, 2008-2014

Table 1-1

Robotic Surgical Specialties Procedure Marketing Efforts Focus

Table 2-1

Robotics Market Driving Forces

Table 2-2

Healthcare Robotics Enabling Technologies

Table 2-3

Surgical Robotic Product Development Challenges

Table 2-4

Robotic-Assisted Minimally Invasive Surgery Market Driving Forces

Table 2-5

Types Of Procedures Performed Using Robotic Surgical System

Figure 2-6

Worldwide Robotic-Assisted Minimally Invasive Surgery (MIS) Market Shares, Shipment Dollars, 2007

Table 2-6a

Worldwide Robotic-Assisted Minimally Invasive Surgery (MIS) Market Shares, Shipment Dollars, 2007

Figure 2-7

Worldwide Robotically-Assisted Surgery Systems Equipment Shipment Market Forecasts, Units, 2008-2014

Figure 2-8

Worldwide Robotically-Assisted Surgery Systems Equipment Shipment Market Forecasts, Dollars, 2008-2014

Figure 2-9

*Surgical Assist, Campus, Personal Services, and Pharmaceutical Robot Market Shares, Market Strategies, and Mar...*

Worldwide Number of Surgical Robot Instruments Shipment Market Forecasts, Units, 2008-2014

Figure 2-10

Worldwide Surgical Robot Instrument Market Forecasts, Dollars, 2008-2014

Figure 2-11

Worldwide Robotically Assisted Surgery Equipment Shipment Market Forecasts, Dollars, 2008-2014

Table 2-12

Worldwide Robotically Assisted Surgery Equipment Shipment Market Forecasts, 2008-2014

Table 2-13

McKesson ROBOT-Rx Advantage

Figure 2-14

Worldwide Pharmacy Robot Dispensing Shipments Market Shares, Dollars, 2007

Table 2-15

Worldwide Pharmacy Robot Dispensing Shipments Market Shares, Dollars, 2007

Figure 2-16

Worldwide Hospital and Wholesale Pharmaceutical Dispensing Robot Market Forecasts, Dollars, 2008-2014

Figure 2-17

Worldwide Hospital and Wholesale Pharmaceutical Dispensing Robot Market Forecasts, Units, 2008-2014

Table 2-18

Worldwide Hospital and Wholesale Pharmaceutical Dispensing Robot Market Forecasts, 2008-2014

Table 2-19

Factors Contributing To The Growth Of The Pharmaceutical Industry Worldwide

Table 2-20

Response To Rising Healthcare Costs

Table 2-21

US Hospital Profile

Figure 2-22

Worldwide Hospital Remote Presence Robot Market Forecasts, Dollars, 2008-2014

Figure 2-23

Worldwide Hospital Remote Presence Robot Market Forecasts, Units, 2008-2014

Table 2-24

Worldwide Hospital Remote Presence Robot Market Forecasts, Units and Dollars, 2008-2014

Table 2-25

Presence Robots Used In Aspects Of Healthcare Delivery

Table 2-26

Number Of Surgical Procedures Performed Worldwide 2007

Table 2-27

Number Of Surgical Procedures Performed In The US 2007

Table 2-28

Remote Presence Robot ROI Analysis

Table 2-29

Sample Patient Length of Stay Study Results

Table 2-30

Benefits of Remote Presence

Table 2-31

Worldwide Hospital Remote Surveillance Robot Market Forecasts, Units and Dollars, 2008-2014

Figure 2-32

Worldwide Hospital Courier Robot Market Forecasts, Dollars, 2008-2014

Figure 2-33

Worldwide Hospital Courier Robot Market Forecasts, Dollars, 2008-2014

Table 2-34

Worldwide Hospital Courier Robot Market Forecasts, Dollars, 2008-2014

Table 2-35

Worldwide Healthcare Rehab and Disability Assistive and Communication Robot Shipments Market Forecasts, Units, 2008-2014

Table 2-36

Worldwide Healthcare Rehab and Disability Assistive and Communication Robot Shipments Market Forecasts, Dollars, 2008-2014

Table 2-37

Worldwide Robotically Assisted Surgery Equipment Shipment Market Forecasts, 2008-2014

Table 2-38

World Population: Aging Trends 2000 and 2050

Table 2-39

US Population: Aging Trends 2000 to 2050

Table 2-40

Healthcare Robot Regional Market Shares, 2007

Table 3-1

Intuitive Surgical da Vinci Prostatectomy Benefits

Table 3-2

Da Vinci S Surgical System Features

Figure 3-3

Intuitive Surgical System and Wrist Instruments

Table 3-4

Intuitive Surgical Products

Figure 3-5

Prosurgics Robot Assisted Image-Guiding

Table 3-6

Quantitative Methods To Assess Motor Performance For Rehabilitation

Table 3-7

iRobot® Offers The ConnectR™ Virtual Visiting Robot Functions

Table 3-8

iRobot ConnectR Virtual Visiting Robot

Table 3-9

Care-O-bot Mobile Service Robot Target Markets

Table 3-10

Care-O-bot Mobile Service Robot Range Of Services Offered

Table 3-11

Care-O-bot Mobile Service Robot Household Tasks

Table 3-12

Care-O-bot Mobile Service Robot Mobility Aid

Table 3-13

Care-O-bot Mobile Service Robot Communication and Social Integration

Figure 3-14

Care-O-bot Prototype Mobile Platform With A Moveable Interactive Touchscreen

Figure 3-15

Care-O-bot Mobile Platform

Table 3-16

Care-O-bot serving a glass of water to the bedridden user

Table 3-17

Care-O-bot intelligent walking aid functions

Table 3-18

Care-O-bot Used As An Intelligent Walking Aid

Figure 3-19

Paro Robot Human Company

Figure 3-20

Paro At A Nursing Home In Japan

Figure 3-21

Paro Artificial Fur Hygienic



Figure 3-22

MobileRobot SodaBot Small Refrigerator

Table 3-23

MobileRobots Uses:

Figure 3-24

Matsushita's Robotic Blood Sample Courier System

Table 3-25

Matsushita Electric Works Features

Table 3-26

Matsushita Electric Active Robot Features

Table 3-27

MobileRobots Food Delivery and Security Uses:

Figure 3-28

19 DOF Humanoid From Bioloid Kit

Table 3-29

Software Utilities That Come With The Bioloid Kit

Table 3-30

Commands Provided With The Bioloid Behaviour Control Program

Table 3-31

Tribotix Behavior Control Program

Figure 3-32

Hitec/Robonova-1 Sensors

Figure 3-33

Hitec/Robonova-1 Robot

Figure 3-34

Manus-Arm Of Exact Dynamics

Figure 3-35

TUG Mobile Robots Aethon Various Cargo-Carrying Attachments

Figure 3-36

Mopec RoboCourier Smart Robotic Delivery Service

Table 3-37

Mopec RoboCourier Smart Robotic Delivery Service Features

Figure 3-38

Doctor Speaks From InTouch Health Robot Console

Figure 3-39

Doctor Controls InTouch Health Robot From A Console

Figure 4-1

Care-O-bot Robot Mechanics

Figure 4-2  
Care-O-bot Architecture

Table 5-1  
Intuitive Surgical Clearances From The U.S. Food and Drug Administration (FDA)

Table 5-2  
iRobot Roomba 500 series Vacuum Cleaning Features:

Figure 5-3  
iRobot Growth Positioning

Figure 5-4  
iRobot Roomba Positioning

Figure 5-5  
iRobot Roomba Strategy

## **COMPANIES PROFILED**

Intuitive Surgical  
Cardinal Healthcare / Pyxis / HelpMate  
iRobot  
Cypress Computer Systems  
Fraunhofer Institute for Manufacturing Engineering and Automation  
IPA Care-O-bot  
Fujitsu  
Hitachi Ltd. Honda  
Toshiba  
Zeiss  
LG Electronics McKesson  
InTouch Technologies  
AIST / National Institute of Advanced Industrial Science and Technology and Japan  
Science and Technology  
MicroDexterity Systems  
Microsoft MobileRobots  
Mopec  
Prosurgics  
Richard Wolf Medical Instruments  
Ross-Hime Designs  
Sinters SA  
Terumo Medical

## I would like to order

Product name: Surgical Assist, Campus, Personal Services, and Pharmaceutical Robot Market Shares, Market Strategies, and Market Forecasts, 2008-2014

Product link: <https://marketpublishers.com/r/S3F02ECB7E9EN.html>

Price: US\$ 3,300.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/S3F02ECB7E9EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

