The most advanced Telemedicine Robot is now a Multi-Function Crash Cart.

The LifeBot[®] Multi-Function Telemedicine Crash Cart

A mobile telemedicine cart should be versatile enough to handle routine day-to-day procedures but capable enough to manage unexpected emergencies. One should be able to save money, ease budgets and not have to purchase multiple carts to fit multiple needs. Most importantly, it should save lives.

One cart should "do-it-all" or be an "all-in-one" solution.



The first "Virtual Ambulancetm" system.

Featured is a flashing light system to clear the hallways similar to the way an ambulance clears the street. Its patent pending **Boot In-Route**tm feature means it is ready when you need it. Not only is the cart the most advanced, but it is also the very first Emergency Crash Cart with telemedicine, a "**virtual ambulance**" that may be easily deployed facility-wide.





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Real-Time Physician Tele-Presence Completely Re-Defined.



Physicians, intensivists, tele-nurses, or any specialist may use LifeBot[®] lightweight tablet or desktop PCs to login to carts for instant remote "tele-presence". The same PCs may be used to login and be "virtually" on-the-scene to LifeBot[®] equipped ambulances.



The "Robotics" Element.

The LifeBot[®] robotic telemedicine crash cart system has numerous automated features so one may worry less about operating the cart system and focus more upon the patient, the quality of care, and reducing costs.

Physicians utilizing the LifeBot[®] Slate tablet or Desktop PCs, for example, have remote control of the pan, tilt, zoom cameras next to the patient. This is just one of the many features of the LifeBot[®] DREAMS[™] telemedicine systems.

Telemedicine Developed with the U.S. Military.

The Crash Carts utilize the exclusive LifeBot[®] DREAMS[™] technologies developed with the U.S. Military making them the most advanced in the world. The DREAMS[™] Project utilized \$14 million is research funding from Department of Defense agencies.

The carts are the **first** and **only** such systems designed to transmit "**live**" voice, video and full patient physiological data. This is the data usually acquired by complete physiological monitoring systems that are connected directly to the patient.

Since data is transmitted **live**, it is immediately **usable**. Care may be decisive and timely. Separate server systems, that could only delay critical care and increase costs, are not required.

Solid - Tested - Proven.

The LifeBot[®] DREAMStm system was tested and proven in over six years of use on-board pre-hospital paramedic ambulances. It was even successfully utilized for **Disaster Telemedicine** during the Katrina and Rita hurricane disasters.

Video Tele-Conferencing is **NOT** Telemedicine.

LifeBot[®] systems are developed with decades of medical insight or applications experience.

If one looks at the prominent telemedicine cart suppliers today, one may be shocked to realize that most have little or no experience in the healthcare field at all; little knowledge of medical devices and acquiring critical life-saving physiologic information. Most are dedicated to performing video teleconferencing only and have a history as only audio visual specialists.



Unique and Exclusive LifeBot[®] Cart Features:

Many of the following patented and patent pending features are only found in the unique LifeBot[®] Multi-Function Cart System:

- All-in-One Multi-Function, one cart may be utilized for all major purposes reducing overall costs, as opposed to cobbling together many different carts and costly solutions.
- ✓ DREAMS[™] Technologies developed with U.S. Military...it is the only telemedicine cart system to transmit complete critical patient physiological monitoring data live.
- ✓ Over-Sight[™] Acrylic Etched Steel Reinforced Camera Mast enables high-level near patient observation over cart operators and provides for convenient mounting of multiple equipment, accessories, and over-head lighting for dimly lit environs.
- Protected Electronics: All computing, processing, recording, wireless and networking electronics securely protected in standard internal rack mounting systems.
- Security Locking System is designed to securely store and make ready everything one needs for an emergency including MEDS (drugs) and routine storage for use with exam cameras, etc. (may pre-connected and ready).
- Virtual Ambulancetm Mast Tower also houses a flashing digital lights and alert system to clear the hallways in much the same way an ambulance clears the streets en route for an emergency.
- ✓ Boot En-Routetm patent pending system for emergency response so its ready when you get there. Boots all on-board telemedicine equipment using internal Uninterruptable Power Supply (UPS) while cart is in-route to patient location.
- Accessories: Full line of exam cameras, ultrasound, portable cameras and choice of wired and wireless BlueTooth[®] physiological monitoring systems, electronic stethoscopes, blood analyzers, and more.
- Medical Industrial Grade Caster System shock absorbing with select wheels locking mechanisms.
- ✓ Extra Storage: More secure storage space than any cart in the business. Separate storage areas for critical Emergency Crash Cart supplies and routine daily use supplies.
- ✓ **Temporary Keylock Seals** optionally available to secure Crash Cart supplies between use and resupply periods.
- ✓ Oxygen E-Cylinder Mount optional mounting bracket
- CPR Backboard with side mounting bracket available as optional system.
- DREAMStm Patient Data Port to common Electronic Health Records (EHR) optionally available. Complete reports may now be printed or e-mailed in Adobe Acrobat PDF formats.
- Odyssey optional Decision Support Software (DSS) to speed patient clinical assessments. Data from assessments may be also be transmitted live to remote physician using the LifeBot[®] DREAMStm telemedicine system.
- ✓ Radio-Telephone Communications: Optional Voice-Over-IP (VOIP) digital communications for 700MHz P25, 800 MHz trunked, UHF, VHF, TETRA, radio systems and standard phone/cellular systems to talk to in-bound and out-bound air and ground pre-hospital ambulance services. Includes "ringtone" alarms or alert systems for incoming calls.
- Physician, invensivists, and emergency specialists LifeBot Slate Tablet and LifeBot Desktop Personal Computer client systems available separately.

LifeBot Multi-Function Crash Cart Models:

Dual-Bay Version - Model 2001:

The Dual-Bay LifeBot[®] Crash Cart is intended for use in major trauma rooms and wide-spread general floor use. It contains separate locking storage spaces for routine telemedicine and emergency supplies.



Single-Bay Version - Model 1001:

The Single-Bay LifeBot[®] Crash Cart is made smaller to fit into more restrictive clinical environments and at reduced costs.



LifeBot[®] carts storage bays design are based on standard 19 inch rack systems, so all drawer and computing hardware rack systems may be reconfigured or customized for specialized needs or applications.

Examination Camera Systems:



LifeBot[®] has available a complete product line of examination cameras to capture either high resolution images or videos for retransmission to remote facilities using DREAMS^{Im}.

Included are cameras for general exam, otoscopes (ear), eyescopes, dermoscopes and dentalscopes. Some contain polarizing magnification features.

SonoSite[®] Ultra-Sound Systems:



LifeBot[®] DREAMStm systems are compatible with Sonosite[®] ultrasound systems that are the most popular in many military and prehospital ambulance, and Emergency Department applications.

Pictured at left is the M-Turbo[®] model lightweight versatile portable ultrasound system that is certified to transmit its images using LifeBot[®] DREAMStm. The system is ideal for telemedicine cart use and renders striking image quality with

ideal for telemedicine cart use and renders striking image quality with sharp contrast resolution and clear tissue delineation. This ultrasound equipment lets you visualize detail, improving your ability to differentiate structures, vessels and pathology.

What is Tele-Stration?

Tele-Stration or **tele-demonstration** is a feature of the LifeBot[®] DREAMStm telemedicine system. Using this feature a physician, intensivist, or other medical specialist using the LifeBot[®] Slate tablet PC or Desktop PC may draw directly upon the screen of transmitted videos "**live**". Those instructive drawings appear "**live**" at the patient



end rendering real-time clinical care instructions.

Physicians may illustrate "**play-by-play**" where pertinent and information exists and use this method to instruct those treating the patient with precise critical observations.

This is just one of the

many valuable features inherent in the LifeBot[®] DREAMStm telemedicine system. Not only may the physician do instructive screen drawing on patient images, but also the exam camera and ultrasound video images transmitted from the products displayed above.

For a complete list of LifeBot $^{\otimes}$ DREAMS im features please visit the website at **www.lifebot.us.com**.

Comprehensive Products Support:

LifeBot offers comprehensive support options for its products. Products are supported by the Hewlett Packard Elite Healthcare sales force and associated corporate partners. At the time of installation, inservice or training LifeBot direct support teams participate in this support process. Products may also be supported via the HP Care Pack systems.

Where should Multi-Function Crash Carts be used?

Here are just a few examples where LifeBot[®] cart systems may be deployed for **Routine Daily Telemedicine** use and to handle potential unexpected emergencies as on-site "**Virtual Ambulances**tm":

- 1. **Crash Cart Teams** may now deploy the most advanced care with telemedicine capabilities facility-wide.
- Emergency Department may deploy for tele-stroke, teletrauma, tele-psychiatry, etc. and resuscitation support as recommended by American Heart and Stroke Association.
- 3. **Remote Hospitals, Satellite ERs and Clinics**: Deploy where clinical specialists are needed but may only be afforded using remote telemedicine.
- 4. **Community Paramedicine Programs**: Ideal anywhere public health screening and primary pre-hospital care needs to be delivered.
- 5. **Rural Health**: Assure that medical expertise is available where it is needed, when it is needed in remote regions.
- 6. **Prisons and Jails**: Deliver high quality care without the cost and dangers of inmate transportation or the need for clinical specialist to enter the facility, substantially improves safety and access to care while substantially reducing costs..
- 7. **Off-Shore and Sea-Going**: Deploy in off-shore drilling and ocean going vessels where medical expertise is limited.
- 8. **Disaster Relief and Emergency Preparedness**: Any site that is potentially subject to disasters or mass casualty management situations.
- 9. **Developing Countries**: Allows rapid deployment of healthcare to a developing population though relatively low cost clinics supported by remote telemedicine.
- 10. **Schools and Universities**: On-site qualified nurses may deliver primary care and respond to emergencies. Schools are also prime locations to support and manage disasters.
- 11. **Public Events Facilities:** Sports and concert stadiums and convention halls; any where large groups congregate publically and individuals undergo excitement or stress.
- 12. **Sports Injury Physical Rehabilitation**: Carts should be deployed especially where both mental and physical stress are readily encountered.
- 13. **Nursing Homes and Extended Care**: May provide for priceless support to on-site healthcare specialists in evaluating and supporting healthcare needs.
- 14. **Industrial Health**: Industrial sites such as mines, drilling platforms or industrial campuses depend on the health of their employees to operate. They must respond to an unpredictable set of health needs to support sometimes hundreds of employees.





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The LifeBot[®] Technologies Team

LifeBot technologies were either funded, developed or are supported by this extraordinary group of technology and business partners:



Telemedicine and Technology Research Center (TATRC)

The Telemedicine & Advanced Technology Research Center (TATRC) performs medical reconnaissance and special operations to address critical gaps that are underrepresented in Department of Defense medical research programs. TATRC is an office of the headquarters of the US Army Medical Research and Materiel Command (USAMRMC).



Hewlett Packard Company

A Fortune 10 company with over \$139 billion in annual revenues HP provides one of the tech world's most comprehensive portfolios of hardware, software, and services.

The strategic and tactical challenges of healthcare IT are complex and far-reaching. Systems must support quality patient care, facilitate cost reductions and help secure critical medical information. With HP on your side, you'll have the technologies your organization needs to provide exceptional care today and going forward.

LifeBot[®] products are supported by the HP Elite Healthcare Partners and associated corporate groups.



United States Army Medical Research and Material Command (USAMRMC)

The U.S. Army Medical Research and Materiel Command is the Army's medical materiel developer, with responsibility for medical research, development, and acquisition and medical logistics management. The USAMRMC's expertise in these critical areas helps establish and maintain the capabilities the Army needs to fight and win on the battlefield.



Avia, PLC

Avia produces outstanding clinical decision support systems that are the standard for General Practitioners services and Emergency Care throughout the United Kingdom.

The Odyssey system has been highly developed for over 15 years while in use in numerous critical applications.

Now with over 18 million patient assessments the software represents a new standard for use in the U.S. It may aid in quickly, clearly and safely determining whether calls are emergent or non-emergent in nature giving healthcare providers the edge in prioritizing services and significantly reducing healthcare costs.



Bosch

Robert Bosch was established the company in Stuttgart, Germany in 1886. In North America, the Bosch Group employs approximately 25,000 associates in more than 80 locations throughout the U.S., Canada and Mexico. The company also offers advanced healthcare and communications security systems.



Texas A&M University

Primary DREAMStm development is performed at Texas A&M University, Academy for Advanced Telecommunications and Learning Technology who is charged with developing consortia and collaborative opportunities for Texas A&M and the people of Texas in areas of distance learning, telemedicine, advanced telecommunications, and supercomputing. The Academy houses the test-bed for Next Generation 911 (NG911).



University of Texas Health Sciences Center at Houston

As a comprehensive health science university, the mission of The University of Texas Health Science Center at Houston is to educate health science professionals, discover and translate advances in the biomedical and social sciences, and model the best practices in clinical care and public health.



Texas Engineering Experiment Station (TEES)

For nearly 100 years, the Texas Engineering Experiment Station (TEES) has served the citizens of Texas through engineering and technology-oriented research and educational collaborations. Their research has made significant impact on the health, safety and quality of life of Texas citizens and has contributed to the state's economic growth and development.



Vesalius Ventures

A "technology accelerator" based in Houston, Texas. The company was founded by former astronaut Dr. Bernard Harris. Dr. Harris is also the President of the American Telemedicine Association (ATA). Ms. Marsha Lamb, Vice President of Strategic Initiatives, has joined LifeBot as an advisor.

LifeBot, LLC

LifeBot, a telemedicine solutions company, provides exclusive patented and military developed technologies for healthcare.

LifeBot systems are also designed for management of major crises, disasters and emergencies by hospital based and field public safety emergency professionals and for the U.S. Military in battlefield operations.

We integrate capabilities not inherent in today's telemedicine communications so the benefits of achieving telemedicine, telehealth, and emergency preparedness objectives may all be fully realized.

Now with 33 patent awards, LifeBot was founded by renowned inventor Roger Lee Heath to deploy his new exclusively patented telemedicine technologies.

Mr. Heath is best known as the inventor making possible the Automatic External Heart Defibrillator (AED) through his invention of "hands-free" multifunction defibrillator and external pacing combo pads. Mr. Heath was recommended for the Lemelson MIT Prize by American Heart Association officials and others.

His new technologies compliment the DREAMS^{Im}, Odyssey DSS and additional advanced technologies for Advanced Life Support, EMS Mobile Healthcare and Disaster Management with a view towards increasing the quality of care, lowering user work-load and significantly reducing overall healthcare delivery costs.



Business Partner advanced telemedicine with continuity of care.tm

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