

MED+TECH *OUTLOOK*

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**BRIDGING
THE LIFE
AND WORK
EXPERIENCES**



Robert Harrison,
President, and Co-Founder

SIMULATOR SOLUTIONS

\$15



Our
simulators
inherently
come
with low
maintenance
and peace of
mind



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MEDTECH OUTLOOK TOP 10 SIMULATION SOLUTION PROVIDERS - 2019

BRIDGING
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The only source of knowledge is experience.” Albert Einstein may have used this to explain the vivid experiences of his own life in ‘Ideas and Opinions,’ but it is an undeniable fact, which holds true for everyone and everything that we do.

We live in a world full of chaos and emergencies, some natural and others induced.

In such conditions, what is always common is the sound of ambulances and the paramedical crews that end up saving the day. Although working in a stressful environment may seem like a paramedic’s second nature, but only a few get to witness the constant ‘make or break’ moments they deal with amid the sirens and on-road movements. These crucial moments demand a swift response, informed decisions, and calculated risk anticipation while recognizing unique conditions for every patient. With no room for errors, how does a new paramedical staff deal with all this from day one? “The secret lies in knowing what to expect during the unexpected,” says Robert Harrison, president and co-founder, Simulator Solutions.

Harrison along with his wife Lori designed their first working prototype of an ambulance simulator for the EMS World Expo 2008 in Las Vegas. Harrison was one of the first recipients of EMS World’s prestigious Top 20 Innovators award for his pneumatic movement simulator. This was the first time he realized his genius, and based on recommendations, reinvented the simulator to be modular in design to fit into classrooms and tight spaces for educational purposes. Fast-forward a few years, Harrison’s ingenious ambulance simulator has given the MedTech ecosystem one of the leading and most innovative solutions across the U.S.

SIMULATOR SOLUTIONS

COVER STORY



Robert Harrison,
President, and Co-Founder



Staying ahead of trends and being connected to our clients is a great key to help us unlock the needs of the future EMS students. This helps us to be the best company that we can be



Ahead of the Game

Simulator Solutions was born with a vision to prepare medical students for the real world. The company came into existence to fill the experience void that exists between the classroom and actual work environments. Simulator Solutions provides ambulance simulators for the competitive world of emergency education to practice EMS skills and gain ambulance familiarity. The company offers a wide range of simulators that are built for meeting the operational and financial requirements for educational institutions of all sizes.

The suite of classroom ambulance simulators is available in four different models—Bronze, Silver, Gold, and Platinum. The Bronze model is an open

stationary simulator that facilitates an external view of an ambulance. The simulator's wide cutouts allow the students and instructor outside the simulator to view and participate as the scenarios play out. On the other hand, the Silver model is completely enclosed, which allows students to get the first-hand experience of a real ambulance. The solution also includes audio/video feed, enabling the instructor to communicate and monitor the students as they perform their scenarios externally. Each simulator includes four 1080p high definition cameras, which are connected to a 60-inch classroom monitor so that students not participating in the scenario are able to continue learning while watching

their classmates' performance. A DVR allows the instructor the ability to debrief afterward and help the students understand what was done well and what needs improvement.

The other two premium models contain Harrison's patented pneumatic system that takes ambulance simulation to the next level. Keeping the medical staff ahead of the game, the Gold and Platinum models replicate harsh road conditions and other distractions that will be prevalent in their job environments such as sirens and flashing lights. "These features allow students to practice their skills such as performing CPR or using a stethoscope," explains Lori. While the Gold model is open concept, the Platinum model comes enclosed, which provides the most realistic training experience as it mirrors very closely what students will encounter in the field. One of the most impressive capabilities of the Platinum model is to isolate students to avoid any facial cues from other students or the instructor.

A Feature-Rich Solution

Although the four ambulance simulation models are built with keeping costs in mind, the models have features that genuinely differentiate Simulator Solutions from its global competition. Simulator Solutions' simulators are built with high-quality resources such as hospital-grade flooring and interiors. The solutions are also easily installable due to its modular construction and can be customized to fit into smaller spaces. The primary assembly consists of welded two-inch tubular steel instead of medium density fiberboard, and aluminum interiors and exteriors that gives the simulators its durability. Besides, the company not only offers free upgrades for their existing customers in case of any improvements but also allows their customers to opt

for additional packages and upgrades such as the safety package, which contains seatbelts, overhead grab bar, and a safety net. “Our simulators are inherently low maintenance and come with preventative maintenance, extended warranty options, and peace of mind,” explains Lori.

Moreover, Simulator Solutions also offers outdoor and mobile simulators that can be used in medical institutions. The mobile ambulance simulators—Trailer and Caster models—are similar to the classroom models when it comes to build and functionality. The Trailer model is built on a chassis that allows for easy towing and serves as a perfect option for serving multiple campuses.

Simulating Operational Success

Simulator Solutions is well known in the U.S. MedTech community for delivering products that best suit the user requirements and boasts over 65 successful installations across various institutes in the U.S., including State Universities, Community Colleges, Technical Colleges, High Schools and both federal and state government agencies. These institutions have consistently been able to attract students and visitors through its simulators and have witnessed tremendous growth in Emergency Medical Services (EMS) student onboarding year over year. Furthermore, Simulator Solutions pays special attention to customer service. This is one of the main reasons the company attracts customers consistently.

Going on a Redefining Spree

Following the success of ambulance simulators, Harrison is currently scouting for areas where his pneumatics-infused simulators could be used. The company is focused on building simulators that can quickly



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come apart and be installed in classrooms of various sizes. Additionally, Simulator Solutions will continue to build new prototypes based on client recommendations.

On this note, Harrison will unveil his latest innovative invention a rollover simulator, this summer. True to his dedication to providing durable, long lasting simulators, the yet to be released model will use a welded steel construction with a gearbox and brake design. The equipment will be modular in design making it easy to install in a classroom setting. Allowing the instructor to stage the rollover at any point within a 360-degree radius, it can be used on its side, upside down, or anywhere in between. The brake ensures stability as the students work through their scenarios. Mannequins can be placed on each of the four provided seats within the simulator and will allow students to gain practical experience in situations involving vehicles. Delivering emergency medical care, extrication, clearing airways, and putting a patient on a backboard becomes a different scope if they are suspended above the EMT. Realizing the value of creating a simulator to duplicate this scenario, Harrison included four seats and a steering wheel in his design, so the students are forced to deal with multiple people/injuries at a time. Again with the hopes that the more realistic the training, the better the trainees will perform out in the field when every second counts. Another critical step in terms of product advancement is drone ambulance. The company has already discovered the rise of drones in the paramedical ecosystem and anticipates the explosion of this technology in terms of medical assistance. “Staying ahead of trends and being connected to our clients is a great key to help us unlock the needs of the future EMS students. This helps us to be the best company that we can be,” adds Harrison.

SIMULATION SPECIAL

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COMPANY:

Simulator Solutions

WEBSITE:

simulator-solutions.com

KEY PERSON:

Robert Harrison
President & Co-Founder

DESCRIPTION:

Delivers game-changing ambulance simulators to provide students with hands-on training for real-life scenarios

TOP 10 SIMULATION SOLUTION PROVIDERS - 2019

Today, a number of factors, including a rising focus on patient safety, desire for standardized educational opportunities that are available on-demand, and need to hone skills in a controlled environment have led to the increased use of simulation technology across the healthcare education continuum. Medical simulation technology allows a clinical situation to be better understood, controlled, and virtualized through the use of interactive videos, manikins, role-playing techniques, and more. Simulation tools serve as a better alternative to practicing medicine on cadavers. A trainee, learning in a simulated environment, is encouraged to make mistakes and learn from them without the fear of harming an actual patient. This not only increases their confidence but also improves their skills significantly.

Today's simulation products can range from basic models that teach a simple, single skill to advanced realistic equipment that facilitates complex interactions. For example, low-fidelity manikins such as an IV arm can be used for practicing injections, wound closure techniques, and more. At the same time, high-fidelity manikins, , are used in a variety of high-stake trauma scenarios, such as a mock code, a postpartum hemorrhage, or a mass-casualty incident. In this day and age, computerized full-body manikins are considered the mainstay of simulation-training.

With a comprehensive view of the simulation technology's wide applications, this edition of MedTech Outlook brings you the "Top 10 Simulation Solution Providers - 2019." A distinguished panel comprising of eminent CEOs, CIOs, VCs, and analysts, along with MedTech Outlook's editorial board have assessed several simulation technology solution providers and shortlisted the ones that are distinctively prominent in the field. The companies listed here showcase extensive business knowledge and exhibit competence in delivering innovative solutions that meet the needs of the customers.