Executive Summary

Graduated Backboard, Inc. is a medical device development company that has designed and patented an emergency response backboard with an integrated scale and software that it plans to manufacture and market. The medical device will help medical professionals deliver better emergency care by quickly and accurately acquiring patient weight and providing a fast and reliable basis for calculating medication dosages and administering lifesaving methods to patients. It also has input/output ports engineered within the device to acquire vital signs and send the medical information via wireless technology to any smart device that is programmed to receive it. This reduces the number of medical errors and malpractice liability, while improving the quality of patient comfort and care.

An emergency response backboard with an integrated scale and software can positively impact and change the lives of women and children in so many ways. It can be utilized in pediatric and adult care to effectively weigh individuals in emergency, clinical and home health care settings. It can acquire and convey important vital information in a timely and concise way, and utilize other medical devices more effectively. It can assist woman and children who lack the ability to stand due to injury or illness to acquire an accurate weight and other necessary medical services with dignity. Examples of this are inclusive of, but not limited to: individuals with broken bones in the lower extremities, wounded women and children in war zones, wounded warriors, individuals with disabilities, and women and children in need of emergency services. It can also be utilized by females who work professionally in emergency, clinical, and home health care medical fields to be empowered to give more effective, appropriate, accurate care to their patients and more effectively save lives.

Mission

The mission of Graduated Backboard is to design, develop, and market new patented technologies in the medical device field that will fill current needs to improve patient outcomes and provide better, more accurate, and more time efficient information for care providers. The patented technologies will ensure that first responders and medical professionals alike are empowered to more effectively and accurately perform specific life-saving responsibilities in high stress situations, thus improving patient outcomes and quality of care.

Company Information

Graduated Backboard, Inc. is owned by Sheridan Heinrichs and will be formed in the State of Alaska with corporate headquarters located in North Pole, Alaska. Graduated Backboard will be incorporated in order to effectively raise capital and limit shareholder liability. The company will not have any full time paid employees within the first 12 months after incorporation. Once the company begins to expand, personnel with be hired. As the company grows, it will ensure successful performance by offering remuneration packages for key personnel with the performance of the company through stock options and other salary. As the company advances, it will strive to increase the local economy by expanding local corporate offices, establishing research and development facilities, and it will study out the feasibility of creating local manufacturing and distributing facilities.

Growth Highlights

Since initiation of a basic concept over five years ago, Graduated Backboard, Inc. has made extensive progression. The concept was initially instigated through conversations that started with firemen that are personal friends and professional affiliates, and continued to evolve and develop through personal experiences and more conversations with professionals and patients in the medical field. Those conversations emerged into immense amounts of research inclusive of personal and professional perspectives and insights from various doctors with differing specialties, firefighters, nurses, EMTs, paramedics, physical therapists, wounded warriors, disabled individuals, in-flight medical professionals, etc. The research, development, and writing of the concept continued to expand, and a provisional patent application was filed with the USPTO on April 11, 2011. An entire year was spent continuing to develop and refine the concept, and on April 11, 2012, a full Utility Patent was filed with the United States Patent and Trademark Office. The next few years were spent addressing various office actions, continuing progression of the research and development of the concept, networking with various medical manufacturing companies, and doing research on numerous medical device design firms. On November 18, 2014, a full Utility Patent from the USPTO was acquired. Since that time, immense research and development has continued, a key medical device design firm has been selected and contacted, and they have extended a proposed preliminary contract. Private software developers have been contacted and they have proposed preliminary contracts to work with them. The process of researching angel investors and venture capitalists has been continual. This groundwork has built a strong foundation over the past five years that will allow the company to move forward successfully.

Technology

Graduated Backboard has received a full utility patent from the United States Patent and Trade Office for the Emergency Response Backboard with Integrated Scale. Graduated Backboard's technology utilizes an emergency response backboard with an integrated scale and software to acquire an exact weight and vital signs of a patient and to utilize that information to calculate and administer other lifesaving methods when necessary. Applications of this technology are numerous, and this device will be marketed as a mainstream medical device. Below are engineered images of the device directly from the patent.

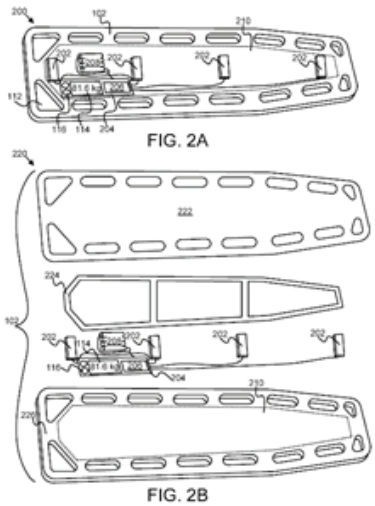


FIG. 2A

FIG. 2B

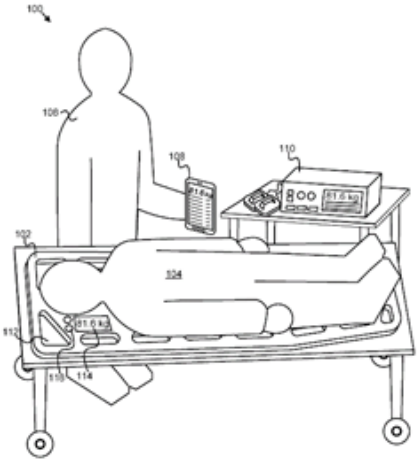


FIG. 1

Company Description

Graduated Backboard will provide more accurate, effective, and efficient medical results for medical professionals in emergency, clinical, and home health care settings. In emergency medical situations, dosages for medications and treatments using defibrillators and other medical devices depend on an individual's weight. Currently, weight is estimated by appearance in adults, and by a Broselow Tape and pediatric wheel in pediatric patients to determine specific drug calculations and accurate administration of those medications. First responders do not currently have a quick and accurate way to obtain an exact weight of a patient in order to perform specific, imperative duties such as administering life-saving medications and/or utilizing other weight based medical devices such as a defibrillator. Because of this, first responders are guesstimating weights via appearance in adults, and utilizing an estimation tool called a Broselow Tape in pediatric patients up to the estimated age of 12 and a weight of approximately 80 pounds (36 kg). The Broselow Pediatric Emergency Tape is a color coded tape measure that estimates the child's weight based on the child's height in order to provide the calculations of things such as medication dosages and weight based shock voltage in utilizing a medical defibrillator. Dosages for medications and treatments using defibrillators and other medical devices depend on an individual's weight. Since time and accuracy are of the greatest importance in life threatening emergencies, the guesstimations of weight and the mental calculations that have to be done spontaneously by first responders detracts from the valuable time needed to effectively and accurately evaluate the patient, initiate treatment, and continue to effectively monitor the patient. With the technological advances that have been made in medical technology, medical professionals should not be guesstimating weights and using archaic medical devices such as the Broselow Tape as a standard for effective emergency medical treatment.

In numerous clinical medical situations, many patients with injured or missing limbs and/or disabilities in the lower extremities struggle to acquire an accurate weight while standing. Currently, no transportable, lightweight medical device exists that allows an accurate weight to be acquired while a patient is lying down. This includes patients with broken bones, wounded warriors in the military, athletes that obtain injuries in the field, individuals with physical disabilities and various handicaps, etc.

As the baby boomer generation gets older, the home health care industry will increase, and home health care providers will need effective, lightweight, portable medical devices that can acquire the weight and vital signs of patients and convey that information to other medical personnel and facilities.

For these reasons, and many more, a need currently exists for a transportable, lightweight device that accurately measures the weight of an individual in various medical situations, offers accurate calculations of necessary amounts of medications and/or electrical energy to be distributed by defibrillators, has the ability to acquire vital signs, and send all of that imperative information via wireless technology to the necessary locations.

Solution

The present invention will provide vital information to medical personnel providing emergency care in the field and more effective medical care in various clinical and home health care settings. It is an apparatus, system, and method for weighing an individual on a backboard. It includes an electronic

display device to display the determined weight of an individual, and a communication module to communicate the determined weight to an electronic device remote from the backboard. It may be configured to determine a dosage for treatment based on the weight of the individual. The device may comprise a defibrillator configured to receive the determined weight and determine an amount of electrical energy that the defibrillator delivers to the supine individual. Pediatric cardiac defibrillation, also weight based, can be accurately and quickly sent to compatible communication devices to deliver a calibrated shock specific to the patient. The apparatus includes one or more input/output ports integrated within the backboard configured to receive sensor data for the supine individual from one or more diagnostic sensors. It can obtain baseline vitals and stabilize the patient for transportation. The device can also accurately measure the weight of individuals with loss of limbs in both emergency medical and clinical medical environments.

The concept focuses on acquiring and delivering an accurate patient weight via the Emergency Response Backboard with Integrated Scale. Informing emergency medical personnel of a patient's weight provides a fast and reliable basis for calculating and administering other lifesaving methods. While the current concept focuses on the integration of a weight scale and emergency backboard, this is seen as only the first of several viable options. It is envisioned that the Emergency Response Backboard could integrate many other sensory and communications options greatly aiding lifesaving and clinical medical professionals resulting in much improved medical outcomes.

As aforementioned, the Emergency Response backboard with integrated scale and software has the ability to give an exact weight of a patient instead of using a current device such as a Broselow Tape that uses generic averages to estimate the weight and then proceed with medical protocol such as administration of weight-based medication dosages or utilization of a weight-based defibrillator. This will profoundly affect the medical, clinical, and home health care fields in so many positive ways. It will allow emergency responders to measure and input vital signs of a patient that can then be sent via wireless technology to an ambulance, a hospital, other medical professionals, etc. It can be utilized as a tool to measure vitals such as blood pressure, capnography, pulse oximetry, etc. that can then be sent via wireless technology to an ambulance, hospital, other medical professionals, etc. It will allow emergency responders the accessibility to information that they currently can only guesstimate in order to make very important, life determining decisions. In clinical settings, it will allow individuals with disabilities and/ or difficulty standing, such as wounded warriors, people with broken bones or injuries in the lower extremities that cannot stand up, and people with various disabilities to get an accurate weight and be able to have a weight measured with dignity instead of trying to figure out how to balance awkwardly on a current standing scale. It can be utilized in numerous ways in a home health care setting to acquire weight and other important vital information. A portable, lightweight scale will profoundly affect the medical field in so many positive ways.

The company has already accomplished the following objectives:

- Researched and expanded on the initial concept
- Written and applied for a provisional patent from the USPTO
- Written, applied for and received a full patent from the USPTO.
- Researched various medical device design firms to decide upon a key company to create the device
- Contacted the design firm HLB and began the application process
- Received an initial proposal from HLB

- Began conferences with HLB to further discuss the initial proposal, business objectives, device design, and schedule.
- Researched the fields of venture capitalists, angel investors, and research and development grants.

The company's growth strategy involves the following objectives:

- Acquire seed capital via angel investors and/or venture capitalists.
- Seek federal grant funding through organizations such as SBIR for research, development, and prototype construction
- Begin the process of creating a website and specific marketing materials
- Refine initial proposal from HLB and begin the design process
- Begin the Base Platform Configuration of the Medical Device
- Do Preliminary Engineering and Internal Componentry Concept Exploration
- Develop the Software
- Begin Industrial Design and Refinement
- Build and Test a Final, Functional Prototype
- Generate Manufacturing Documentation.
- Establish corporate identity, brand names, trademarks
- Build staff and company infrastructure
- Research and decide upon a key manufacturing company
- Apply for and receive "Investigational Device Exemption" from the FDA
- Begin first run of device under "Investigational Device Exemption" to our key market
- Complete clinical trials, generate the required documentation, and obtain full FDA approval.
- Continue R&D and product development
- Research and decide upon a key medical device specialty distributor
- Market, Manufacture, and Distribute the Medical Device
- Ensure post manufacturing quality control
- Ensure successful performance by linking remuneration packages for key personnel with the performance of the company through stock options and other salary

Market Analysis

Market Trends

The medical device market is forecast to continue to increase due to numerous factors including rapid progress of technology, and the increase in patient demand as the baby boomer generation ages. Pew Research claims that for the next 19 years, roughly 10,000 baby boomers will turn 65 every single day. (1) According to a study by Josh Makeower, MD, a consulting medical professor at Stanford University who did a survey of over 200 medical technology companies that was published in November 2010, "The US Medtech industry ships $123 billion in products, pays $21.5 billion in salaries, and directly employs more than 357,000 individuals. Internationally, the United States is the global consumer of medical devices." (2)

Market

The market consists of first responders in various fields such as fire departments, hospitals, ambulances, military, sports medicine, air services, lifeguards, and sea vessels. It also consists of clinical aspects such as physical therapy, pediatric medicine, sports medicine and in home health care. The aging population and health care reform will increase demand in emergency, clinical, and home health care medical fields

.

Emergency Medicine

One market addresses the unanswered need of acquiring an accurate weight in emergency medical situations in order to more effectively diagnose specific things such as medication dosages, amount of jewels to be delivered to a patient via a defibrillator, and other important vital signs. Currently, emergency responders are estimating weights in patients before administering weight based medications and utilizing other weight based medical devices such as a defibrillator. The Graduated Backboard, a new and innovative medical device, has been created to answer this need for an effective, easy way to acquire and display an accurate weight and software to determine correct dosages for treatment based on the determined weight of the patient. The backboard also includes a communication module that is configured to communicate the information to any smart device that is remote from the backboard that is programmed to receive the information, allowing precious time in emergency situations to be utilized more effectively.

Clinical Medicine

Another market addresses the unanswered need of having a portable, lightweight scale in a typical clinical medical environment in order to accurately acquire the weight of patients who have difficulty standing on the standard scales that currently exist. This would be inclusive of, but not limited to, patients with loss of limbs, with broken limbs, with various disabilities, etc.

Sports Medicine and Lifeguards

Another market addresses the unanswered need of having a portable, lightweight scale in sports environments in the clinic, in the water, and on the field so that accurate information can be acquired for injured athletes in a timely, effective manner. This will allow the first responders in sports medicine and lifeguards to more rapidly and accurately acquire the necessary information regarding weight and vital signs in order to proceed more effectively with patient care.

Military

Another market addresses the need for a portable, lightweight medical device that can acquire an accurate weight and deliver more effective medical results for those who defend and protect our liberties in numerous military environments which are inclusive of, but not limited to war zones, training scenarios, transitional medical locations, deployed medical services, and so forth.

Air Services and Sea Vessels

Another market addresses the need that the graduated backboard can fill the markets of air services and sea vessels. Emergency situations are expected to become more frequent as the percentage of older people increases, and the need for more effective medical devices that will assist in providing patient care aboard aircrafts and sea vessels is extremely important.

In-Home Health Care
Home health care is a diverse and dynamic service industry. Approximately 12 million acute illness, long-term health conditions, permanent disability, or individuals currently receive care from more than 33,000 providers(for causes including terminal illness). In 2009, annual expenditures for home health care were projected to be
$72.2 billion. (3)

Key Market

We have been professionally and personally affiliated with the firefighter industry for the past 13 years. During that time, we have had the opportunity to network and create connections both nationally and internationally with numerous fire departments across the globe. The initial basic conceptualization for the medical device was contributed to by numerous firefighters, and the last five years of research and development have included the professional perspectives, insights, and experiences of numerous first responders and other health care providers as we have refined the patent for the medical device. The general scope of our initial key industry of Fire Departments is statistically analyzed as follows
:

U.S. FIRE DEPARTMENTS
NFPA estimates there were approximately 1,140,750 local firefighters in the U.S. in 2013. Of the total number of firefighters 354,600 (31%) were career firefighters and 786,150 (69%) were volunteer firefighters. Most of the career firefighters (71%) worked in communities that protected 25,000 or more people. Most of the volunteer firefighters (95%) were in departments that protected fewer than 25,000 people. There are an estimated 30,052 fire departments in the U.S. Of these, 2,477 departments were all career, 1,971 were mostly career, 5,797 were mostly volunteer and 19,807 were all volunteer. In the U.S., 13,400 (44.6%) of departments provided EMS service, 5,050 departments (16.8%) provided EMS service and advance life support, and 11,600 (38.6%) of departments provide no EMS support.

- - Fire Department with cross-trained EMS personnel: 40%
- - Government or Third Service: 14.5%
- - Private company: 18%
- - Other: 8 %
- - Hospital-based service: 7%
- - Fire Department with separate EMS personnel: 9%
- - Public Utility Model: 2%
- - Police Department with cross-trained EMS personnel: 0.5%
- - Police Department with separate EMS personnel: 1%
- The Bureau of Labor Statistics projects that employment of emergency medical technicians (EMTs) and paramedics is expected to grow by 33 percent from 2010 to 2020, much faster than the average for all occupations. There will continue to be a demand for part-time, volunteer EMTs and paramedics in rural areas and smaller metropolitan areas.

In November 2014, the NFPA did a US Fire Department Profile that determined that there are an estimated 30,052 fire departments in the United States, and 55,105 stations within those departments. The apparatus within those fire departments is as follows:
69, 150 pumpers
7,000 aerial apparatus

76,300 other suppression vehicles

According to the calculations of the above statistics, the total amount of apparatus in the Fire Department Industry in the United States alone to carry EMS backboards is 152,450. This number is due to increase according the future forecasts of growth within the industry. (4)

Number of Ambulance Services: 15,276
Number of Ground Ambulance Vehicles: 48,384
Number of EMS Personnel: 840,669
Ambulance Staffing:
Both career and volunteer personnel: 40%
Career personnel: 38%
Volunteer personnel: 22% (5)

During the Investigational Device Exemption period, we will be marketing primarily to the 271 fire departments that exist within the geographic area of the state of Alaska. Because we are affiliated both professionally and personally with many of the people who work within these departments and make the purchasing orders, we have the opportunity to communicate with them directly in order to market and sell the device. (6)

Competition

The emergency response backboard with integrated scale and software is a lightweight, portable medical device that is effective and user-friendly, with multiple applications. All of the competing devices currently on the market lack the ability to acquire a weight of an individual while lying down, or to produce and display it accurately and effectively, the current typical procedure is to guesstimate weight in patients in emergency medical situations, and then utilize a tool such as a Broselow Tape. First responders also guesstimate weight to use other medical devices such as defibrillators. Although backboards exist, none exists with an integrated scale and software, nor with the ability to utilize input/output ports to acquire and send information regarding vital signs. The current devices also lack the ability to allow emergency responders to input information regarding vital signs and send all of the information acquired to any smart device that is separate from the backboard and has the software to receive the information. The Graduated Backboard will use its patented design to fill the need in the market for an easier to use, more effective backboard.

Our Advantages

The present invention will provide an apparatus, system, and method for weighing an individual on a backboard. It includes an electronic display device to display the determined weight of an individual, and a communication module to communicate the determined weight to an electronic device remote from the backboard. It may be configured to determine a dosage for treatment based on the weight of the individual. The device may comprise a defibrillator configured to receive the determined weight and determine an amount of electrical energy that the defibrillator delivers to the supine individual. Pediatric cardiac defibrillation, also weight based, can be accurately and quickly sent to compatible communication devices to deliver a calibrated shock specific to the patient.

The apparatus includes one or more input/output ports integrated within the backboard that are configured to receive sensor data for the supine individual from one or more diagnostic sensors. It can obtain baseline vitals and stabilize the patient for transportation. The device can also accurately measure the weight of individuals with loss of limbs in both emergency medical and clinical medical environments. This will allow more accurate information and more effective medical services to be provided. Because this is the only medical device that integrates all of the aforementioned technology, the medical industry will buy this product because it will be an effective, powerful tool to assist them in providing more effective care to their patients.

Regulatory Objectives

Once the prototype is created, we will immediately apply for an investigational device exemption (IDE) through the FDA. This exemption will allow the investigational device to be utilized throughout the period of clinical studies so that we can acquire, record, and report data concerning safety and effectiveness. It will also allow us to make any necessary modifications while still having a legally marketable device. The Investigational Device Exemption also allows us to have the medical device legally shipped and distributed without having to comply with the other FDA regulations for commercial distribution. (7)

Graduated Backboard will be initially distributed to emergency responders and entrance will be immediate once the FDA issues an Investigational Device Exemption. Through obtaining an Investigational Device Exemption and clearly labeling the product "For Investigational Use Only," FDA regulations will be satisfied and market entrance will be expedited. Acceptance of these products based on successful research results will drastically increase demand and allow for expansion to foreign markets. Once the IDE has been granted by the FDA, the Emergency Response Backboard with Integrated Scale and software will be able to market and sell the device to interested parties. The average time period for acquiring an approval of an IDE from the FDA is three months. Once the FDA gives full approval for the Emergency Response Backboard with Integrated Scale and Software, the market will then expand and will open to foreign markets.

Organization and Management

Company Ownership

Graduated Backboard, Inc. is owned by Sheridan Heinrichs and will be formed in the State of Alaska with corporate headquarters located in North Pole, Alaska. Graduated Backboard will be incorporated in order to effectively raise capital and limit shareholder liability. Shareholders will participate materially during market validation and prototype testing. Direct marketing will occur to local agencies, and at national trade shows. The Company will accept pre-sales orders directly through its website, and shareholders will market individual one time contracts with sales affiliates. Contingency contracts will also be offered with specific organizations and individuals for product pre-sales and sales. Upon commencement of product manufacturing, products will ship directly from the manufacturing location to purchaser shipping destinations.

Graduated Backboard, Inc.

Sheridan Heinrichs, CEO – As an Innovator, Entrepreneur, and Founder of Graduated Backboard, she has spent the last five years working on the research, writing, and development of the concept and acquiring a patent from the United States Patent and Trademark Office. This task has been inclusive of spending hours of research to implement the wisdom and first hand professional experiences of first responders and medical professionals in various fields that she works with professionally and/or knows personally. She currently owns 100% of the patent rights and 100% of the company. She currently works as an Independently Contracted Professional Interpreter through the Alaska Institute for Justice. As an independent contractor, she has had over 10 years of experience in what it entails to run a small business. As an Interpreter, she is called in on cases varying from human trafficking, domestic violence, medical cases, civil and criminal cases, CINA cases, interrogations, investigations, psychological evaluations, and social services, to name a few. Prior to contracting with the Alaska Institute for Justice, she worked as a family advocate and a lactation counselor. She has been actively involved as a volunteer support person for various fire departments in her communities for the past 12 years, and received the reward of "Support Person of the Year" in 2010 from the North Star Volunteer Fire Department. She has also volunteered as a pro-bono interpreter for various legal, social, and medical organizations, as a Girl Scout leader, a Mentor for the AMYA, a Youth Conference Instructor, a Girl's Camp Director and Advisor, and a Dance Instructor for various organizations in the community and the military. Because her husband has been a firefighter for the past 18 years, and is currently a fire captain, she has a deep-rooted, personal investment in the importance of ensuring that first responders have effective tools and devices to ensure positive and accurate outcomes for themselves and the people they serve. She received her BA in English/Literature with a minor in Spanish from the University of Utah, a Family Development Credential from Cornell University, and professional credits for attending the Education in the 21st Century Conference at the Constitutional Hall in Washington, DC. She has received certifications for passing the ALTA language Evaluation in English and Spanish, the Interpreter Training Program Certification, and the National Center for State Courts Written Exam.

Advisory Board

Christine Boddy has been active in the Alaska Fire service since 2005. In those ten years, she has held ranks from firefighter up to Lieutenant and is currently an Engineer for the North Pole Fire Department. Christine is an Emergency Medical Technician 3 with advanced training and has been awarded "Firefighter of the year" for the North Pole Fire Department, "Most Emergency Responses for the Year" for Steese Volunteer Fire Department and "Student of the Year" for the University of Alaska Fairbanks Fire Science Program where she graduated with her AAS in Fire Science in 2008. Christine was a Program Assistant for the University of Alaska Fairbanks Fire Science program, assisting in teaching, performing, equipment maintenance, grading and course review. Christine has assisted teaching numerous courses involving both firefighting and Emergency Medical Services.

Bethany V. Chernich, DO, ACOFP, completed her B.S. in Biology in 1996 from the University of Michigan, and then spent two years in mission service in Belgium Brussels from 1997 – 1999. In 2005, Bethany received her Doctorate in Osteopathic Medicine from Kirksville College of Osteopathic Medicine. She served her Family Medicine Residency at John C. Lincoln Hospital from 2005-2008, and

received Board Certification in Family Medicine and Osteopathic Manipulation in 2008. She is currently a practicing Primary Care Physician at Tanana Valley Clinic, in Fairbanks, Alaska.

Dan Grimes, Deputy Chief of Operations – Central Emergency Services, Soldotna Alaska.
Dan Grimes is a 24 year veteran of the Alaska Fire Service, and after spending almost 20 years with the Fairbanks Int. Airport Police & Fire Department reaching the rank of Deputy Chief, he is currently the newly appointed Deputy Chief of Operations for Central Emergency Services. He has taught extensively throughout the state, providing instruction in Aircraft Rescue Firefighting, FF-I, FF-II, "Calling the Mayday", Methods Of Instruction, RIT, and Air Management. Chief Grimes specializes in applying the basics of firefighting to real world situations. Recipient of the State of Alaska 2007 William Hagevig Instructor of the Year award, he is a passionate advocate of realistic, relevant training for Alaska's firefighters. Chief Grimes is a current executive board member of the Alaska Fire Standards Council, and the 1st Vice President of the Alaska State Firefighters Association.

Scott C. Hilton is a partner at Kunzler Law Group. Mr. Hilton helps clients of all sizes acquire patent and trademark protection for their intellectual property and helps them enforce that intellectual property, including clients such as SanDisk, IBM, Lenovo, PurePredictive, and Boeing. Mr. Hilton joined Kunzler Law Group in February of 2006 after studying electrical and computer engineering at Brigham Young University. He attended law school at the S.J. Quinney College of Law at the University of Utah, where he was selected as the Best Oralist in the Giles Sutherland Rich Intellectual Property Moot Court competition between local law schools and where his paper entitled "Free and Open Source Software: How Free are the Nonliteral Elements?" was selected as a winner in the Nathan Burkan Memorial Competition on copyright law. Mr. Hilton finished his final year of law school at the J. Reuben Clark Law School at Brigham Young University, where he researched the subject of Internet regulation and worked to introduce a CyberSafety Constituency within ICANN, the Internet governing body. Prior to joining the firm, Mr. Hilton spent two years performing patent research and analysis on the 3GPP wireless standard in Europe for Coltera Intellectual Property. While at Coltera, Mr. Hilton worked with and trained attorneys and engineers from many of the largest wireless companies in the world on intellectual property and technical matters. He later worked in-house for Fujifilm Microdisks, where he drafted core patent applications and screened patents in the disk drive industry in preparation for a new product release.

Adam Krynicki - Adam has 10+ years of working with high-tech startups and inventors who want to commercialize new inventions. Adam helps technology companies with company formation, marketing, sales, complex contract negotiation, technology licensing, and financing. Adam serves as the Secretary of the board for the Alaskan startup accelerator program, Launch:Alaska. In addition, Adam serves as the Vice President of the board for Nanook Tech Ventures. Education: Adam received his Jurisdoctorate from Duquesne University School of Law and he is admitted to the Pennsylvania State Bar.

Juliet Shepherd, a seasoned industrial supply chain professional, and communications and resource consultant, is the Tech-Led Development Project Manager at the Fairbanks Economic Development Corporation. She has facilitated cross-cultural collaborations and communication trainings, in conjunction with the U.S. Department of State in former Soviet satellite states; and in remote industrial production environments, governmental agencies, with businesses, and entrepreneurs, in Alaska. Juliet has a passion

for propagating win/win outcomes, fostering economic diversity, and is a founding member of R.E.M. Unconventional Vision, an entrepreneur think tank promoting socially responsible business development in Alaska, which launched FairBikes bike share - winners of the first Startup Weekend Fairbanks in 2013. She completed a Fulbright Fellowship in Eastern Europe, post-bac business studies at the University of Alaska Fairbanks, and received a B.A. degree in Integral Intermedia from Mills College in Oakland, California.

Russ Talvi has 20 plus years of experience as a manager/owner of a destination resort as well as hospitality and food and beverage businesses in AK and Hawaii and has participated in the Executive MBA Program at University of Hawaii, Manoa. He has personal experience buying and selling businesses, both asset sales and stock sales. He loves to help existing small businesses review their current financial performance, discover opportunities and implement improvements to increase their profitability. Russ earned BA, Biology with minor in Economics from University of Alaska Fairbanks.

Service or Product Line

Product/Service Description

Graduated backboard will initially market four devices: a basic pediatric graduated backboard, an advanced pediatric graduated backboard, a basic adult graduated backboard and an advanced adult graduated backboard.

The basic graduated backboards will consist of an integrated scale, an electronic display device to display the determined weight of an individual, and basic software that will allow weight based medications to be calculated. It will also include a communication module to communicate the information to an electronic device remote from the backboard.
The advanced graduated backboards will provide an apparatus, system, and method for weighing an individual on a backboard. It will include an electronic display device to display the determined weight of an individual, and a communication module to communicate the determined weight to an electronic device remote from the backboard. It may be configured to determine a dosage for treatment based on the weight of the individual. The device may comprise a defibrillator configured to receive the determined weight and determine an amount of electrical energy that the defibrillator delivers to the supine individual.
Pediatric cardiac defibrillation, also weight based, can be accurately and quickly sent to compatible communication devices to deliver a calibrated shock specific to the patient.
The advanced graduated backboards will also include one or more input/output ports integrated within the backboard that are configured to receive sensor data for the supine individual from one or more diagnostic sensors. They can obtain baseline vitals and stabilize the patient for transportation.

All of the devices can also accurately measure the weight of individuals with loss of limbs in both emergency medical and clinical medical environments. This will allow more accurate information and more effective medical services to be provided. Because this is the only medical device that integrates all

of the aforementioned technology, the medical industry will buy this product because it will be an effective, powerful tool to assist them in providing more effective care to their patients.

medical device	Description	Av. Retail price per unit
basic pediatric graduated backboard	integrated scale, electronic display device, communication module, basic software	$1200
advanced pediatric graduated backboard	integrated scale, electronic display device, communication module, advanced software, input/output ports to acquire and send vital sign info	$1600
basic adult graduated backboard	integrated scale, electronic display device, communication module, basic software	$1500
advanced adult graduated backboard	integrated scale, electronic display device, communication module, advanced software, input/output ports to acquire and send vital sign info	$2000

Marketing & Sales

Marketing Plan

Because we are affiliated both professionally and personally with first responders in fire departments throughout the world, we will begin marketing through direct professional contact within the firefighting industry during the first year of the investigation stage of the FDA process. A great deal of networking and marketing occurs during various firefighting and ems conferences, medical conferences, and trade shows. We will attend these various events to market the device. During the second year of the investigation stage, we will begin to market to first responders in the aforementioned markets via various channels including direct professional contact, digital advertising, email, search engine optimization, social media outreach, and TV and Radio commercials.

We will utilize firefighters and fire captains that have contributed to the research and development of the device to market the device to their fellow firefighters by having them explain through these various channels why they originally sought for a medical device to make their services more effective in the field of rescue and emergency medicine, and how it will create more positive and accurate outcomes for first responders.

We will market the reality that the Graduated Backboard was created by first responders for first responders, to ensure that others within their professional realm will have a more effective device to provide more accurate, effective assistance with their services and results for their patients.

We will create and maintain a company website where we will directly sale our medical device. We will also create and maintain an active business blog that includes search engine optimization so that we can be found on numerous search engines and expand our opportunities through internet marketing. This will enhance the amount of inbound marketing through internet traffic that will allow our company website to be found where potential customers are looking.

Once we have acquired full FDA approval, we will expand our market internationally through the aforementioned channels.

Commercialization

After immense amounts of research and communication with various extremely successful medical device manufacturing companies, a key design firm was selected and contacted. After going through their application process, immediate contact was made and a contractual proposal to work with them was extended. The design firm HLB was selected as the key design firm based on their success rate, the 250 other medical devices they have created and marketed successfully, and the fact that they were highly recommended by CEOs of other multi-billion dollar medical manufacturers.

Our current commercialization plan consists of

- Base Platform Configuration Exploration
- Preliminary Engineering and Internal Componentry Concept Exploration
- Software Development
- Industrial Design Concept Generation
- Final Industrial Design Refinement
- Engineering Refinement
- Functional Prototype Build and Testing
- Final Revisions of all Databases and Generate Manufacturing Documentation
- Release of Manufacturing Documentation to Appropriate Sources
- Assist Tooling and Manufacturing Sources
- Evaluate First shot Samples
- Assist Manufacturing Source

After research is done within the company and the company has reviewed and researched recommendations by HLB for manufacturing sources, we will choose a key manufacturing company and begin working on an initial proposal with them. We will then seek to acquire a manufacturing contract and begin the manufacturing process with our chosen company.

Sales and Distribution

The initial sales and distribution will occur directly with people we have worked with professionally for the past 12 years. Because we already have so many affiliations within our primary target market, we will initially act as the direct sales force nationally and internationally and utilize our own attorneys to write the distribution agreements. Once the orders are placed, we will do direct drop shipping from our contracted manufacturer. The contracted manufacturer will handle the inventory management and the shipping. Substantial evidence exists in the medical device field to support the reality that drop shipping is an extremely efficient and cost effective solution to the challenges of inventory and shipping costs for medical device companies. It reduces various expenses related to building an inventory, shipping expenses, inventory management, cost of facilities and/or warehouses, to name a few. Through the identified sales and distribution strategy, we have the ability to be lean at first and scale up as demand permits. When we have exhausted our direct sales and distribution efforts, we will consider utilizing specialty distributors.

Funding Request

We are currently in the process of seeking angel investors and/or venture capitalists. We are also in the process of doing research and preparing to write applications for research and development grants. Up

to this point, all business expenditures (inclusive of attorney fees, patent expenses, research, development, labor, transportation, etc) have come out of the personal funds of Sheridan Heinrichs, CEO, and the company is debt free.

Financial Projections

Liquidity for Investors and Equity Valuation

Graduated Backboard's management intends to grow Graduated Backboard into the market leader in the medical device manufacturing field with its innovative emergency response backboard with integrated scale and software. With the attainment of each milestone, Graduated Backboard's potential will accelerate and its enterprise value will grow accordingly. It is likely that private investors will continue to show interests in Graduated Backboard's common and preferred shares as the business conveys consistently strong performance. This will create market liquidity for current investors. The company will consider the possibility of appropriate merger opportunities, and investors may achieve liquidity through this vehicle.

Key Assumptions

The values for the revenue in the financial forecast are based on market research in the medical device manufacturing field combined with the estimated average cost of the various elements necessary to create the Graduated Backboard. They are also based on the current average cost of marketing and distributing of medical devices. As you can see in the forecast, we will begin selling a small amount of the backboards during the investigation period of the FDA to first responders that we have worked with professionally for the past twelve years, and that number will increase as we do a secondary run and branch out to other markets. In this specific forecast, we purposely estimated the amounts that we will annually sell and selling price per unit low, and amount of cost manufacturing and direct labor per unit high, to ensure financial stability even if progress and growth is initially slow.

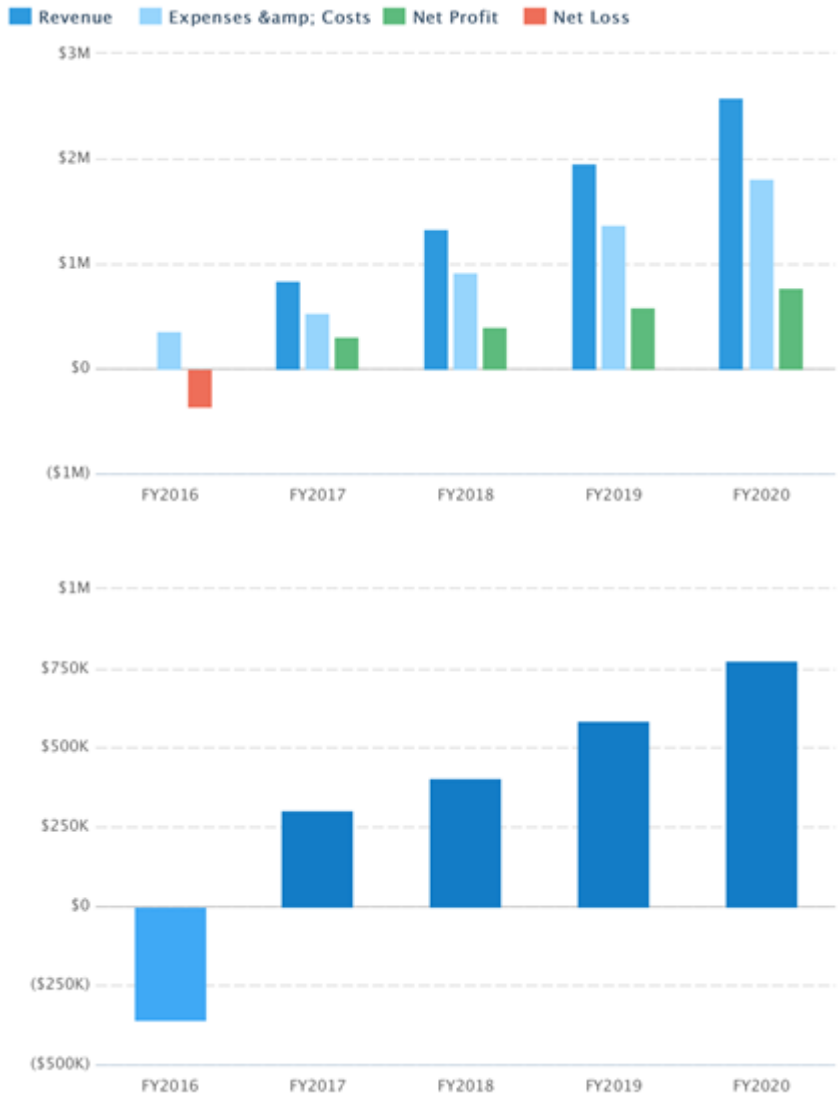
type of backboard	cost of goods sold	amount sold 2017	amount sold 2018	amount sold 2019	amount sold 2020	price per unit
basic pediatric graduated backboard	500	50	100	200	300	$1200
advanced pediatric graduated backboard	600	50	100	200	300	$1600
basic adult graduated backboard	600	200	300	400	500	$1500
advanced adult graduated backboard	700	200	300	400	500	$2000

The current contractual proposal with HLB to create a fully functional prototype, to create and release manufacturing documentation to appropriate sources, to assist in tooling and manufacturing sources, to

evaluate first shot samples and to assist in connecting the company with a manufacturing sources is estimated to be $200,000. Our objective is to begin this process in 2016. The current standard amount of distribution that medical device companies pay is averaging about 10% of gross income. We estimated high at 15% just to ensure a barrier for error. Our administration will remain minimal in the first few years due to the fact that we will be outsourcing, subcontracting, and doing contingency contracts.

Expenses	2016	2017	2018	2019	2020
design, create prototype, first run	$200,000				
Marketing	6000	20000	20000	20000	20000
Manufacturing		290000	460000	680000	900000
Distributing		126000	199500	294000	388500
General Administration	4000	100800	159600	235200	310800

Financial Highlights by Year (8)



Appendix

1. http://www.pewresearch.org/daily-number/baby-boomers-retire/

2. www.advamed.org/res.download/30

3. *Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2012-2013 Edition, EMTs and Paramedics on the Internet at http://www.bls.gov/ooh/healthcare/emts-and-paramedics.htm*

4. http://www.nfpa.org/research/reports-and-statistics/the-fire-service/administration/us-fire-department-profile

5. http://www.naemt.org/about_ems/statistics.aspx

6. http://dps.alaska.gov/fire/directory.aspx

7. http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/HowtoMarketYourDevice/InvestigationalDeviceExemptionIDE/

8. **Statements**

Projected Profit & Loss

	FY2016	FY2017	FY2018	FY2019	FY2020
Revenue		**$840,000**	**$1,330,000**	**$1,960,000**	**$2,590,000**
Direct Costs		**$290,000**	**$460,000**	**$680,000**	**$900,000**
Gross Margin		$550,000	$870,000	$1,280,000	$1,690,000
Gross Margin %		**65%**	**65%**	**65%**	**65%**
Operating Expenses					
Salary					

Employee Related Expenses					
marketing	$6,000	$20,000	$20,000	$20,000	$20,000
Distributing		$126,000	$199,500	$294,000	$388,500
Design, Create prototype, 1st run of product	$200,000				
general administration	$4,000	$100,800	$159,600	$235,200	$310,800
Expense from Other Current Assets	$150,000				
Total Operating Expenses	**$360,000**	**$246,800**	**$379,100**	**$549,200**	**$719,300**
Operating Income	**($360,000)**	**$303,200**	**$490,900**	**$730,800**	**$970,700**
Interest Incurred					
Depreciation and Amortization					
Income Taxes	$0	$0	$86,820	$146,160	$194,140
Total Expenses	**$360,000**	**$536,800**	**$925,920**	**$1,375,360**	**$1,813,440**

Net Profit	**($360,000)**	**$303,200**	**$404,080**	**$584,640**	**$776,560**
Net Profit / Sales		**36%**	**30%**	**30%**	**30%**