

2010 Johns Hopkins University Business Plan Competition Winners

Best Social Enterprise

Ix-Neox LLC

Ix-Neox LLC provides affordable renewable energy solutions by harnessing solar and kinetic energy to bring light into rural villages in Bangladesh. Soaring fuel costs, depletion of fossil fuels, and a lack of electric grids and basic infrastructure deprive millions of Bengali's of light. The Solglobe, a spherical bulb that does not require an electric grid, will enable these villagers to access light and dramatically improve their daily lifestyles

Other Business Plan Competition Statistics for IX-Neox LLC

- Tennessee Venture Summit – Attendees
- Spring Board Ventures 2010 - Cleared the 1st Round
- Austin Business Journal - Winner - Renewable Energy Category 2009

Minhaj Chowdhury, Krieger School of Arts and Sciences, Undergraduate
Richard Proffitt
Lutfur Rahman
Mike Moran
Rekha Bangalore

General Business Group A

1st Place – InGame

The US market for in-game video game advertising is \$800 million. Current methods of advertising are static; they are virtual posters on virtual walls. The current business model is for an advertising agency to partner with a game developer and influence the scenery of a video game that is in development. InGame is different.

Instead of adding scenery to new video games in development, InGame transforms existing games into marketing experiences. InGame focuses on older games that still have a large user base, but are no longer supported by the original developer. These games continue to be popular because of user-generated content. InGame creates maps that embody its clients' brands. Sounds, scenery, objects, and gameplay are all integrated into a quality product. InGame generates value for its clients because it is more targeted and more interactive at half the cost.

Jan Lee – Whiting School of Engineering, Undergraduate
Nikhil Vadhavkar – Whiting School of Engineering, Graduate

2nd Place - Auto Screen

AutoScreen is a custom telephone-interviewing platform tailored specifically to recruiting processes. Digitizing the written screener combines best practice methodologies with data management capabilities. By automating certain tasks, the software will optimize efficiency, cut down on labor and increase quality through validation methods. Aggregating data on respondents will create a valuable database for research and future recruiting projects.</p>

Nathan Weiss – Whiting School of Engineering, Graduate

3rd Place - Ix-Neox LLC

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costs, depletion of fossil fuels, and a lack of electric grids and basic infrastructure deprive millions of Bengali's of light. The Solglobe, a spherical bulb that does not require an electric grid, will enable these villagers to access light and dramatically improve their daily lifestyles.

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General Business Group B

1st Place - MyFreebees

MyFreebees uses a closed-platform social networking site to harness research data from the 18 to 24 year old demographic. The online network, <http://www.myfreebees.com> provides free online products to college students within a school-specific interface and these products elicit their participation. The network launched on the Johns Hopkins University campus on December 11, 2009. Within the first two months of its launch, the site received over half a million hits from approximately 3,600 unique visitors. This overwhelming response prompted quick expansion and on February 24, 2010, server capacity was increased to support two additional campuses: Towson University and Loyola College. MyFreebees is currently marketing the site at those campuses. MyFreebees sold network advertising space to companies as large as The Princeton Review to help fund this expansion.

2nd Place - Dress to Impress Text Messaging Service

Dress to Impress Text Messaging Service will bring value to consumers by offering expert advice on clothing in a timely and cost effective manner. After getting dressed, the customer sends Dress to Impress a text message with a picture of their outfit. In addition to a picture of their attire, the customer will say what style of clothing they want to wear, i.e. "professional" or "business casual." Within five minutes, one of our Expert Stylist rates their clothing. Our rating system will include both a verbal rating, ranging from "Excellent choice! A great way to start your day!" to "At least make your socks match! Try again, here are some hints: " In all the five verbal ratings will correspond a non-verbal five star rating system. A near-perfect outfit will receive five stars; the less an outfit compliments a customer the fewer stars the attire will receive. Regardless of rating, our Expert Stylists will also text five ways to improve the customer's outfit.

Neil O'Donnell – Whiting School of Engineering, Undergraduate

3rd Place –Halcyon

Rather than focusing on standard market sectors like rural, off the grid or off-coast areas, Halcyon will target urban centers with tall buildings. Office buildings in the U.S. use an average of 17 kilowatt-hours (kWh) of electricity and 32 cubic feet of natural gas per square foot annually. Therefore, our focus is on the small wind turbine market and our product will have a power output of 6454 kWh/year and allow for a payback period of around 2-4 years.

Halcyon's radical new technology does away with the need for the 80-120 foot towers usually associated with the wind turbine and uses a composite material in its vertical axis turbine design to lower the weight of the machine and allow higher rotation under slower wind speeds and lower blade fatigue failure.

Laura Veldhuis – Whiting School of Engineering, Undergraduate

Life Sciences Group A

1st Place - Aeramatics

Aeramatics' InSpiro device replaces the current mechanical models with a simple, electronic system that allows for standard assessment of progress, real-time recording, and target-setting capabilities. The visual feedback is replaced by a graphical display of bars that will rise in proportion to inspired air relative to a target that a care provider can set. This will allow patients to gain satisfaction from meeting short term goals while data regarding average inspired volume, the most recent inspired volume, and number of breathing attempts can be accessed. In addition, a reminder feature will illuminate for each hour of non-use, promoting the adherence to clinical protocol.

Himali Fernando - Whiting School of Engineering, Graduate

Yifan Shen - Whiting School of Engineering, Graduate

Sung Jin Sunwoo - Whiting School of Engineering, Graduate

Alan Young - Whiting School of Engineering, Graduate

2nd Place - Cortical Concepts

Dealing with spine surgeons at Johns Hopkins Hospital, Cortical Concepts has invented a new procedure to allow for fixation in the osteoporotic spine, termed Corticoplasty. Using a device called the Cortical Anchor, surgeons extend the strength of the strong cortical bone to the pedicle screw. The Cortical Anchor is inserted before the screw and expands into the vertebra as the screw is placed. Initial tests in cadaveric spines have shown this procedure to increase the strength of fixation in extremely osteoporotic vertebrae by up to 100 percent. The Cortical Anchor has several significant advantages over competing alternatives such as expandable screws, additional instrumentation, and cement augmentation. First, the device is superior because it is universally compatible with all pedicle screws. Since the surgeons are very loyal to their vendors, they are not likely to switch brands. Thus, the compatibility of the Cortical Anchor allows a spinal surgeon to use it without switching screw brands. The Cortical Anchor is also designed for "on-the-fly" use. In approximately 20 percent of spinal fusions, surgeons are unaware the patient has poor quality bone until they are well into the surgery. The Cortical Anchor addresses this problem by providing the surgeon with a device that can be used on a much shorter notice than existing alternatives. Finally, the Cortical Anchor is advantageous because it is safer than alternatives such as cement augmentation, which can leak into the spinal canal.

Other Business Plan Competition Statistics for Cortical Concepts

- Cornell Venture Challenge - 1st Place
- Spirit of Enterprise (University of Cincinnati) - 3rd Place
- New Ventures World Competition (University of Nebraska) - 3rd Place
- New Venture Challenge (University of Oregon) - Trade Show Winner
- Stuart Clark Venture Challenge (University of Manitoba) - Trade Show Winner
- Tulane Business Plan Competition
- The Elevator Competition (Wake Forest University) - Semi-Finalist
- Wharton Business Plan Competition – Winner
- Moot Corp Competition (University of Texas) - Qualifier

Christopher Komanski – Whiting School of Engineering, Graduate

Evan Luxon – Whiting School of Engineering, Graduate

Jason Hsu – Whiting School of Engineering, Graduate

Nicholas Martinez – Whiting School of Engineering, Graduate

3rd Place - CervoCheck LLC

CervoCheck is a device that accurately detects the onset of preterm labor to allow the timely prevention of preterm birth. CervoCheck has been designed to accomplish:

1. Direct application to the cervix by the physicians
2. Direct detection of cervical/uterine activity using biocompatible EMG sensors.
3. Real-time monitoring and signal processing.
4. Communication of data to a fixed external display

To meet these criteria as efficiently as possible the total device has been segmented into three elements:

- the cervical ring with instrumentation
- the circuit/software
- external display

Other Business Plan Competition Statistics for CervoCheck LLC

- Tulane BPC - Semi-finalist
- Carnegie Mellon McGinnis Venture Challenge - Semi-finalist
- Noetic Technologies Invent Your Future Competition - Semi-finalists
- University of Louisville Cardinal Challenge - 3rd Place
- University of San Francisco International BPC - 1st Place
- University of Texas IC2 Student Commercialization Plan Competition - 2nd Place
- Moot Corp Corporation

Deepika Sagaram - Whiting School of Engineering, Graduate
Christopher Courville - Whiting School of Engineering, Graduate
Rose Huang - Whiting School of Engineering, Graduate
Karin Hwang - Whiting School of Engineering, Graduate

Life Sciences Group B

1st Place – SurgiSafe

SurgiSafe plans to apply its patent-pending control technology to a suite of surgical devices. The flagship product in prototype testing phase is The Intelligent Surgical Drill add-on. The Intelligent Surgical Drill is a safety add-on, compatible with many popular models of orthopedic drills, which uses sensors and control logic to stop or slow a drill when the surgeon loses control. The stop and slow mechanisms are engageable and optional. These functions can be used in conjunction with warning lights to provide the surgeon with visual and/or audio cues that indicate if the drill is out of control, a valuable function for the training of surgeons.

Leyla Isik - Whiting School of Engineering, Undergraduate
Salina Khushal - Whiting School of Engineering, Undergraduate
Hyun-Sun Seo - Whiting School of Engineering, Undergraduate
Michael Shen - Whiting School of Engineering, Undergraduate
John Thomas - Whiting School of Engineering, Undergraduate
Emilie Yeh - Whiting School of Engineering, Undergraduate
Samrie Beshah - Whiting School of Engineering, Undergraduate
Maher Khalil - Whiting School of Engineering, Undergraduate
Jonathan LeMoel - Whiting School of Engineering, Undergraduate
German Om - Whiting School of Engineering, Undergraduate

2nd Place – Hydrangle

Hydrangle's device protects the cavernous nerves by keeping them warm during cryoablation (freezing) surgery. The Apex needle is placed near the cavernous nerve under ultrasound guidance, and current runs through high-resistivity wire located near the tip of the needle to produce heat, preventing freezing of the nerves.

Christopher Mihalsky - Whiting School of Engineering, Undergraduate
Nikhil Vadhavkar - Whiting School of Engineering, Undergraduate
Laura Paulsen - Whiting School of Engineering, Undergraduate
Yuan-Ping Li - Whiting School of Engineering, Undergraduate
Sivateja Mandava - Whiting School of Engineering, Undergraduate

3rd Place – MedGen

SmartIV (referred as the system below) is a specific designed drip infusion monitoring system developed by the MedGen medical device design team. The system contains a light weight and water resistant sensor, which uses pressure difference to monitor the flow rate of drip infusion in the intravenous room, and a receiver/monitoring module, which collects the information from the sensor and provides user interface for further data analysis. The sensor has no direct contact with fluid thus risks of contamination or extravasations are minimized.

The flexibility and durability of the system also make it easy to be deployed in the current framework of hospital at very low cost. Moreover, the system allows nursing staff to concentrate on other vital tasks while it monitors the infusion processes of all patients in the intravenous room and presents the gathered information to orderly personnel. Based on the requirements of customers, the system can be provided in two different approaches. For public hospitals with designated IV rooms, the system incorporates the sensors with the central monitoring unit providing the user interface for high level information analysis. For small clinics such as family physicians, the system comes with sensor with both audible and visual alarms.

Yuanming Suo - Whiting School of Engineering, Graduate
Xiaoyu Guo - Whiting School of Engineering, Graduate
Weilei Wu - Whiting School of Engineering, Graduate
Yifan Zhang - Whiting School of Engineering, Graduate
Jianqiao Feng - Whiting School of Engineering, Graduate
Chang Liu - Carey Business School, Graduate
Liang Qian - Carey Business School, Graduate
Ning Ma