

FOR IMMEDIATE RELEASE

1 September 2011

Concept to company in 12 months: ***NyX Devices, Inc, a new MIT MechE startup, closes \$0.5 Million financing***

In September 2010, Dr. Matt Bianchi, an MGH sleep neurologist, challenged students in the MIT 2.75 Precision Machine Design course to create a comfortable, low-cost system to enable at-home patient sleep monitoring. Three senior MechE students, Thomas Lipoma, Carson Darling and Pablo Bello, accepted the challenge and in less than a year have built a working system, founded a company, graduated, secured financing and delivered the first prototypes for trial.

For the last 7 years MIT Prof. Alex Slocum's 2.75 course has partnered with [CIMIT](#) to focus on the design of medical devices and enable Boston-area clinicians, who have identified challenges in their practices, to work with student teams in creating prototype solutions.

As Dr. Bianchi explained, annually over 3 million sleep studies are performed in the US to detect chronic sleep disorders and, currently, these require a patient to spend a night in a clinic connected to over a dozen sensors, ranging from brain wave electrodes to blood oxygen trackers. Data from these are then divided into time segments and manually categorized into various sleep states. Consequently, sleep studies are uncomfortable, expensive and waiting lists are long. Clearly an alternative is needed!

By the end of the fall semester Thomas, Pablo and Carson developed their first prototype "Somnus Sleep Shirt," consisting of a snug fitting, washable shirt with embedded capacitive displacement sensors that monitor patient respiration, a detachable electronics package and a custom online interface and algorithm that automates sleep "scoring." Beta testing suggested that the system could successfully record and analyze patient sleep. The following semester, the team continued into the 2.753 Design of Mechanical Products class and further refined the system. The team was guided by Profs. Alex Slocum and Joel Dawson and Graduate Instructor Nevan Hanumara.

Meanwhile, they entered CIMIT's Prize for Primary Healthcare competition and, as finalists, received a \$10K grant. Additionally, the team travelled to Minneapolis to present their paper, "Somnus: A Sleep Measuring Shirt Based on Chest Expansion and Respiratory Patterns," at the 10th Anniversary [Design of Medical Devices Conference](#) where they won a prize in the prestigious [Three-in-Five Competition](#). Competitors had three slides and five minutes to "pitch" their projects and winners received a \$500 prize and were invited to publish in the ASME Journal of Medical Devices.

Believing in their technology, the graduating seniors forewent the job search and instead decided to incorporate Nyx Devices. Mid-summer they moved from Prof. Slocum's lab to a sunny office, with ample bench space, in the waterfront "Innovation District." Last month, less than 12 months since the project began, the three entrepreneurs closed their first round of \$0.5 million financing from a consortium of leading medical device angels and delivered the first shirts to Dr. Bianchi, who has begun a clinical trial in the MGH sleep lab. Moving forward the team sees great potential for their technology in the home wellness and diagnostic markets, as well as other applications where non-intrusive respiratory monitoring is desired.

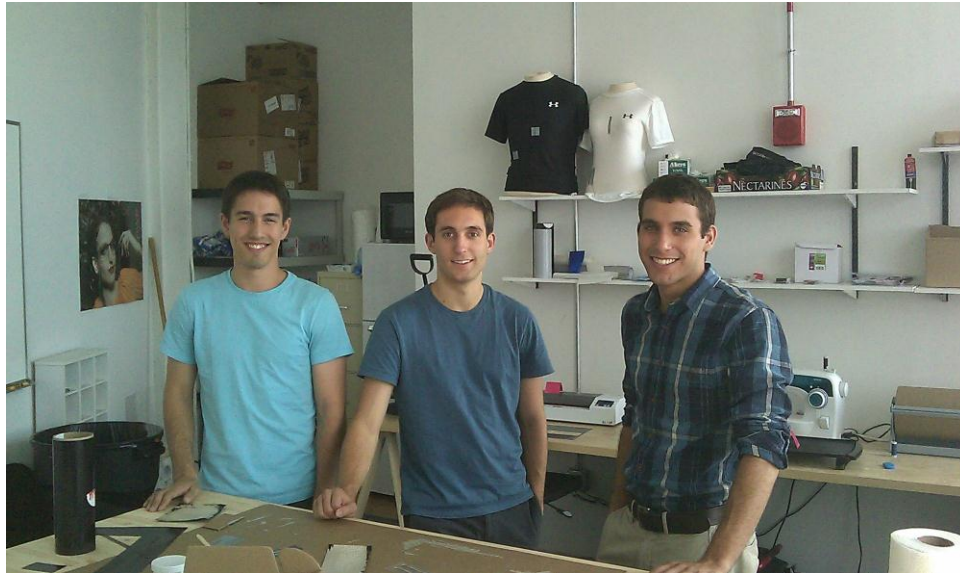
MIT Technology Review Article: "[A Nightshirt to Monitor Sleep](#)," 23 May 2011

Link to Corporate Site: <http://nyxdevises.com/>

Contact:

Nyx Devices, LLC, 319 A Street, Suite 4C, Boston, MA, 02210

+1. 831-708-8058

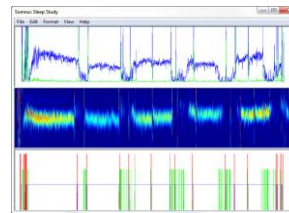


Nyx founding team in new 319 A Street, Boston, Offices

Left to Right: Thomas Lipoma, Carson Darling, Pablo Bello



Somnus Shirt in action



Sample Output