



Spring 2017 Projects - Commercializing Advanced Technologies



COLD PLASMA

A project with AirProducts to identify markets for cold plasma technology. This student team is most interested in applying the use of cold plasma for sterilization and cleaning. Once the quickest to market application is discovered, they will propose a business plan involving a partnership with a current device manufacturer.

Students: Jane Thibeault, Yuhan Chen, Katherine Mezic



SABERMETRICS & TRI-CITY VALLEYCATS

The goal of this project is to find technology that could be used to enhance athletic performance. The Tri-City ValleyCats, a Houston Astros affiliate, reached out to the team for support in implementing biomechanical devices into their organization. There are many technologies potentially applicable to the ValleyCats organization. These technologies are generally fully developed for use, but not necessarily for baseball operations. The project goal was to identify the best biomechanical devices for application in baseball.

Students: Alex Hudak, Seth Stauble, Gavin Noritsky, Lauren Young



XOS PROJECT

The XOS project included a market exploration for a product fit for a new heavy metal elemental analyzer—specifically water contamination in arsenic polluted areas such as Western India. XOS has the most accurate detection limits of any product on the market. The group found that India’s water quality standards are so restrictive that the only device coming close to measuring at those detection limits is the Black Rabbit the XOS product. Their assessment determined that, the XOS product had the ability to be commercially viable in a wide variety of fields. They then turned their attention to specialty health brands that undergo extreme filtration techniques and explored their receptivity to this product.

Students: Pat Calhoun, Eric Dominguez, Nicholas McNeill



MARINUS ANALYTICS

Marinus Analytics is a startup that creates innovation in data analytics while also working to stop human trafficking. For their project, this student team pursued two different applications for the Marinus technology: vendor vetting and anti-counterfeiting. Vendor vetting would allow companies, who are reliant on third party contracts, to see if their labor and operational practices are ethical. Anti-counterfeiting would help with a large wave of counterfeited goods that has poured into the U.S. market recently.

Students: Andrea Fischetti, Candice Poon, Ryan Gavin



TAILORED INERTING OF COMBUSTIBLE DUST

The project goal was to identify new applications for Air Products’ existing inerting technology with specific focus on addressing combustible dust safety hazards. The team explored industries that have combustible dust in their processes and assessed these industries’ potential use of inerting. Using the learning plan methodology the team developed a strategy for bringing the inerting process to the industries impacted by combustible dust explosions. Emphasis was placed on understanding the market needs and perceptions; generally establishing the “voice of the customer.” The team determined that targeting the chemical processing industry as the beachhead market was a reasonable strategic approach.

Students: Xiaotian (Mark) Li, Andrew Eagan, Pat Hogan



HELMETS

Kirsh Helmets is a startup company founded in 2012 that developed a liquid-gel helmet liner designed to increase motorcycle rider safety by dissipating a greater amount of force upon impact, as well as reducing the rotational energy placed on the user’s body during a crash. The company is currently under the umbrella of their parent corporation, Impact Technologies. Kirsh has just recently hit the market with a matte black, half-shell motorcycle helmet, but they wanted to explore other markets. The Team investigated the feasibility of entering the football, polo/equestrian, military, cycling, auto racing, and motocross markets.

Students: John Blakeman, Nate Bowles, Tim Spafford