Applicant: Sproutel, Inc.
Knowledge Partner: Bertram Malle, Brown University
Location: Providence
Industry: Health Care (Technology, Design, Engineering)
Recommended Funding: $50,000

Innovation Project:

Sproutel, Inc. and Brown University are partnering to assess the effectiveness of the Jerry the Bear platform and a new prototype for delivering healthcare information to children. Sproutel has developed and produced Jerry the Bear, an interactive toy for children with type 1 diabetes that helps them learn about their medical procedures and treatment through play. The effectiveness of the current iteration of Jerry the Bear and the new prototype will be tested against one another, and against participant baselines regarding diabetes management prior to receiving Jerry the Bear. This research will help Sproutel expand the Jerry the Bear platform, and help the team gain knowledge regarding its psychosocial benefits.

Applicant: CoreMechanics, LLC
Knowledge Partner: Dr. Jeff Konin, University of Rhode Island
Location: Narragansett
Industry: Health and Wellness (Textile Innovation)
Recommended Funding: $50,000

Innovation Project:

CoreMechancis, LLC Collaborating with URI will be a crucial step to further enhance the CoreForm product. URI's College of Business Administration, specifically the textile department, will be providing needed industry standard testing on the garment portion of the product. The engineering department will test specific pressures exerted on and from the human body while wearing the garment. The physical therapy department will be testing CoreForm on a student and patient population. CoreMechanics is a health & wellness company that is developing wearable exercise products for daily use in prevention and stabilization of musculoskeletal injury. The company's initial product, CoreForm (patent pending), is designed to improve core muscles from the neck to lower back, enhance posture and spinal/shoulder alignment, improve balance, and increase circulation.

Applicant: Prometheus, Inc.
Knowledge Partner: Andrew Hull, Naval UnderSea Warfare Center
Location: Newport
Industry: Defense
Recommended Funding: $50,000

Innovation Project:

Prometheus, Inc. working with the Naval UnderSea Warfare Center to provide the experimental evidence demonstrating that Prometheus algorithms applied to acoustic data will find the delamination while a submarine is in water thereby providing a method to significantly reduce maintenance costs for the submarines by hundreds of millions over time. Prometheus is a mathematics and engineering

research firm that specializes in the application of high-level mathematics to modeling, simulation and signal processing. The maintenance of the hull coating on Virginia Class submarines costs hundreds of millions of dollars over the program's lifetime. The delamination detection will prevent the unnecessary removal of hull coating portions during depot maintenance. In addition, the submarine need not be dry docked for this examination which means it can be done in advance of the depot maintenance so that workers can predict and order only the needed amount of material for repair the subs.

Applicant: Navatek, Ltd.
Knowledge Partner: David Taggart / George Tsiatas University of Rhode Island
Location: South Kingstown
Industry: Naval research and design
Recommended Funding: $50,000

Innovation Project:

Navatek, Ltd. will draw on the University of Rhode Island's mechanical and structural engineering expertise to help develop a better computational methodology for new and increasingly innovative designs of drop stitch inflatable structures. Navatek's emerging innovative technology of these inflatable structures using "drop stitch" is also called "distance fabric," which is three-dimensional, with internal stitching woven between upper and lower fabric skins. When inflated, these drop stitches are placed in tension, resulting in a stabilized inflated flat panel with improved shear resistance. Drop stitch structures are stiffer than similarly sized simple inflated bladders.

Applicant: Desmark Industries, Inc.
Knowledge Partner: Bahram Nassersharisf, University of Rhode Island
Location: Cranston
Industry: Manufacturing/ R&D
Recommended Funding: $49,896

Innovation Project:

Desmark Industries, Inc. Working with URI, Desmark Industries will investigate, design and test textile composites for body armor focusing on research, development, materials selection, and testing methods in creating wearables for security and military force protection during engagement which may include non-weapon combat, knife attacks, and bullets. The proposed work will investigate the current state of the technology in protective textiles and textile composites for body armor. The goal is to research and investigative current literature related to methods and technologies to stop multiple threats. It is anticipated that this solutions approach will take advantage of a variety of materials and lamination technologies to be identified and studied for product development.

Applicant: Cooley Group
Knowledge Partner: Dr. Kunal Mankodiya, University of Rhode Island
Location: Pawtucket
Industry: Manufacturing
Recommended Funding: $50,000

Innovation Project:

Cooley Group working with URI will drive research activities in the development of (1) product technical specifications that will include detailed information of beacon technologies and smart textile antennas, and (2) will provide the records of all the studies and trials conducted on prototypes created for smart billboards. This project centers around the concept of Smart Billboards and how they can be developed to address market demands in an era when urbanization is at its fullest expansion, and when cities are seeking smart technologies such as internet-of-things to autotomize various operations. Apart from the streetlights, the large billboards hold a great potential to disrupt the market because they are the integral part of the city's revenue model. When the cities get smarter, they need more revenues to sustain and maintain the smart infrastructure. The smart billboards, when digitized and populated with sensors and the connection to the cloud services they can serve several purposes.