

A man with short dark hair and a serious expression is wearing a dark blue, high-collared jacket. He is standing with his hands on his hips against a plain, light-colored background. The jacket has a visible zipper and a small, light-colored patch on the chest.

***Delivering Textile  
Driven Product  
Innovations***



## ***About the company***

Propel LLC, a woman-owned small business, designs and develops textile driven technologies to make those in the military and fire service safer. Propel's products are indicative of our ability to provide textile technology solutions for difficult challenges across industries.

Propel has received numerous innovation research grants from the US Department of Defense, and current projects include, for the US Navy, the development of electrically enabled textiles (e-textiles) to connect the human to ship, and, for the US Marine Corps, the development of fire resistant nylon/cotton combat uniform textiles.

Skill and experience, rapid prototyping capabilities, deep textile industry knowledge and an excellent record of university and commercial collaboration make Propel uniquely qualified to solve challenging problems. We are not tied to a single technology or industry—instead we address each specific problem in order to develop the best solution. We develop highly innovative solutions for clothing systems including job specific garment design and engineering, textile-based human to machine interfaces, electronic textiles, and personal protection in extreme environments. Propel can tackle any problem where textile innovation is the core of the solution, exceeding expectations every time.

Our design team speaks multiple languages, and is well versed in innovative textile technology development from fibers to finished textile products. With an excellent record of transitioning from research and development to production, Propel has played a significant role in the development and fielding of a wide range of products including:

- Physiological Monitoring Garments
- Camouflage Textiles
- Fire Resistant Textiles and Garments
- Kneepads
- Gloves
- Boots
- Protective Clothing for Challenging Environments







TOP LEFT PHOTO ON OPPOSITE PAGE COURTESY OF STEVEN SENNE — THE ASSOCIATED PRESS

SUBMARINE DAMAGE CONTROL (STEAM) SUIT (TOP RIGHT) PHOTO COURTESY OF US NAVY BY JOHN F. WILLIAMS



## ***Our expertise***

- Materials Research
- Materials Selection
- Materials Development
- 3D Knitted Structures
- Textile Processing
- Textile Engineering
- Seam Engineering
- Electronic Yarns
- Electronic Textiles
- Smart Garments
- Personal Protection
- Fire Resistance
- Camouflage and NIR
- Impact and Ballistic Materials
- Extreme Environmental Conditions
- Chemical Biological Protection
- Rapid Prototyping
- Transition to Manufacturing

# Markets/Customers

Propel has a wealth of experience in textile materials and processes which enables us to take projects from conceptualization through full scale manufacturing. At the heart of this approach is collaboration. Current and past partners include Peckham Inc., Miltech, Globe Manufacturing, Patagonia Inc., Cascade Designs, Infoscitex, Human Systems Integration Inc., Creare Inc., Aspen Aerogels, SSM Industries, Mustang Survival, Sheep Venture Company, Clemson University, North Carolina State University, Skidmore College, Worcester Polytechnic Institute and the University of Rhode Island.



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# Products



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## Ghillie Suit Fire Resistant Yarn Accessory Kit (YAK)

The Ghillie Suit Fire Resistant Yarn Accessory Kit was developed to replace the highly flammable hemp/jute textile used by US Army Snipers to construct their personal camouflage system.

## Quiet Loop®

Quiet Loop is integrated into USSOCOM's Protective Combat Uniform System. Quiet Loop has NIR performance and camouflage print definition which, when combined with the audio signal dampening, contributes to enhanced overall signature management.

QUIET LOOP IS A REGISTERED TRADEMARK OF PROPEL LLC

## Air Force Cold Weather Aviator System Boots

Designed and engineered in collaboration with Globe Manufacturing and Made in the USA in Auburn, ME, this innovative flight boot ensures safety, comfort and extreme cold weather protection for Air Force aviators. Approved as Safe to Fly by US Air Force.

