

## Rowers Design Retro Unis

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Advanced production technologies for apparel allow designers and users to generate products outside of the traditional product development model. Technologies such as CAD, digital printing, and flexible production studios enable a rapid process that has the ability to include



users into the design process. This rowing uniform was developed through a collaborative process facilitated by technology. This design was part of a pilot study of user participation in the design process that was conducted from Oct. 2013 to April 2014. Nine members of the Cornell Men's Rowing Team took part in a usership survey, a set of design sessions, and an exit survey, to test user innovations in the design of a custom rowing uniform. The initial survey explored issues related to the participants' likelihood to be a lead user in the design process and was used to categorize the users for the design sessions.

Three teams of users, organized into high-scoring users, low-scoring users, and a control group, worked in three different sessions with a designer to develop concepts for new uniforms. The top two designs from each session, as chosen by the designer and rowers, were illustrated and put to a vote by over 100 athletes. Team members overwhelmingly chose a retro design emblazoned with “BMA,” which stands for Best Man Afloat, a time-honored rowing cheer. The concept was further refined based on comments from the voting process.

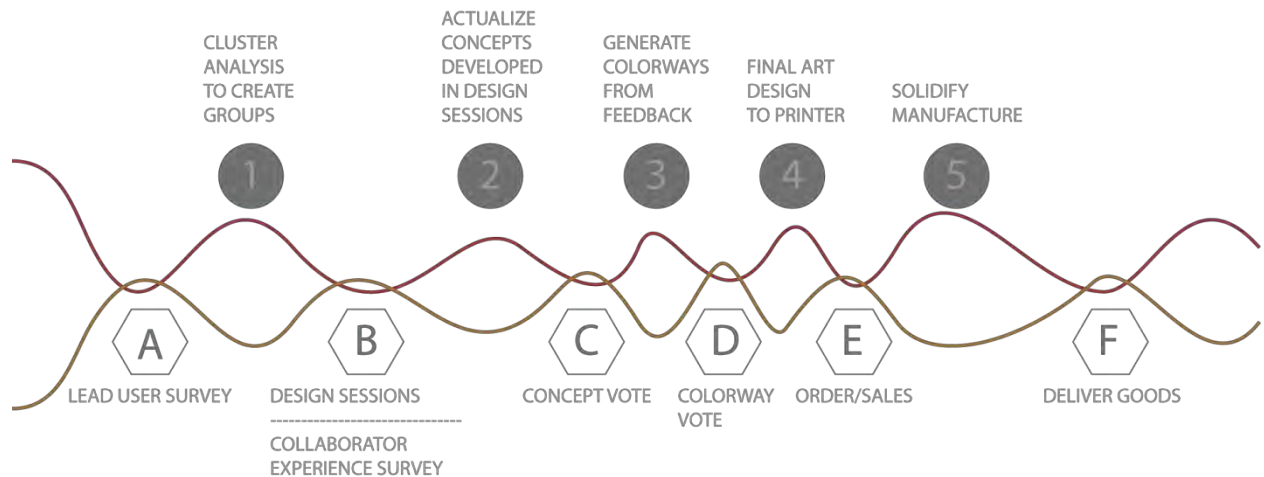


Figure 1: Points of contact with users

The final design was again distributed to the men’s rowing community, and rowers placed orders for the uni, for which many of them had contributed to or refined the design. Figure 1 outlines the main points of contact with the rowers in the design and development process. Letters A-F show the contact with the users and numbers 1-5 describe work done on the back end by the designer to facilitate the process.

Patterning and grading of the four size options were accomplished using CAD software. Iterations of samples for each size were produced to adjust fit. Final patterns were imported to *Adobe Illustrator* where the artwork was applied into each size. Patterns were arranged into markers to conserve fabric. A production sample was generated and was wear tested by rowers for fit and print durability before the full production run. In total 18 unis were printed and produced following batch production methods.

Overall, the pilot study found users who scored high on the initial survey to be more fluent in number of sketches and unique design features than users who had low scores. Also, the design concepts of the high-scoring users were the highest rated when put to a vote. From the perspective of the designer, high-scoring users were able to quickly settle on design concepts and continued to develop several cohesive designs. In contrast, the low-scoring users “could come up with ideas all day; they just were not able to follow through with any one concept.” This garment, as a contribution to the apparel field, was not only an opportunity to develop a functional product that meets the rower’s needs, but also an opportunity to utilize a collaborative method facilitated by technology.