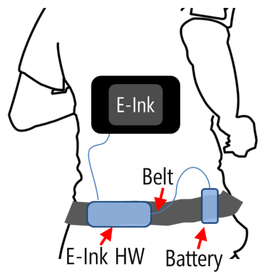
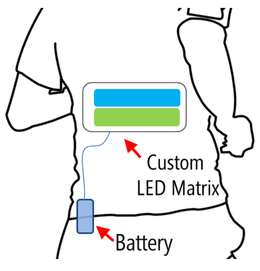
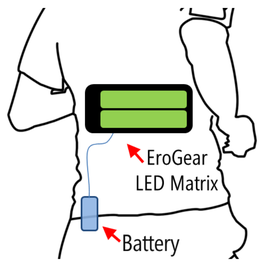
What if Our Clothes Could Show How Fast We Run?

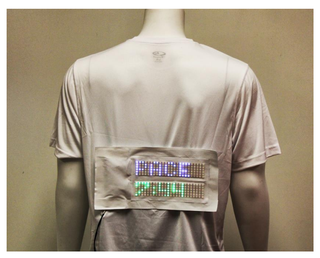
Three Prototypes

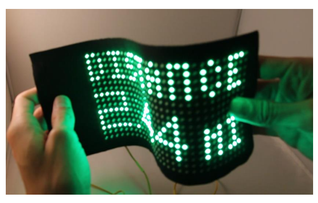
We created three wearable prototype displays: two flexible LED-based panels and a flexible e-ink display. During our design process, we focused primarily on viewability, comfort, size and weight, and display content. Based on the results of 11 pilot running trials, we selected and refined a final design to prepare for our field studies.

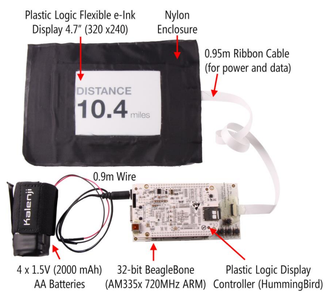


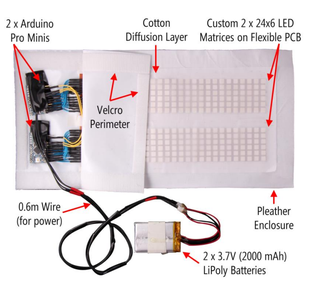


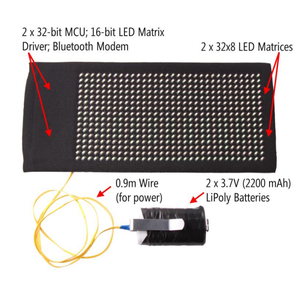












Field Studies

We conducted a field study of 10 running groups and two case studies of race events to examine how our displays impacted the wearer's performance, self-awareness, and mental affect as well as those around them (*e.g.,* improved group cohesion)

Motivation. A large majority of participants agreed that SFF motivated them to run at or faster than the target group pace. For example, one participant commented *"[it] made me want to run faster because my performance was on display"* and another "*It made me more aware of our pacing and kept me more focused on the run itself…"*

Performance awareness. Participants reported feeling more aware of both their individual performance as well as their group's: *"It made me more aware of our pacing and kept me more focused on the run itself…"*

Race-specific results. All participants mentioned that SFF elicited excitement, curiosity, and encouraging reactions from other racers and race watchers: *"I interacted with about 6-7 people, all of which gave positive response. They mentioned how the information was motivating them to run faster than me. A lot of people made comments such as 'that's cool' or encouraging comments—which motivated me"* and "*The finish line announcer saw me and read out my Heart Rate, 192, as I crossed.*"

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