Swimming Across the Pacific
(installation version)

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Type of work: Interactive installation

We created an interactive artwork, *Swimming Across the Pacific (installation version)*, based on a new locomotion interface for swimming in a virtual reality ocean environment as part of our larger *Swimming Across the Pacific* art project. In our exhibit we suspend the swimmer using a hand gliding and leg harness with pulleys and ropes in an 8ft-cubic swimming apparatus as shown below. The virtual reality ocean world has sky, sea waves, splashes, ocean floor and an avatar representing the swimmer who wears a tracked head-mounted display so he can watch himself swim. The audience sees the swimmer hanging in the apparatus overlaid on a video projection of his ocean swimming avatar. The avatar mimics the real swimmer’s movements sensed by eight magnetic position trackers attached to the swimmer.

Our complete artwork, *Swimming Across the Pacific*, takes inspiration from the performance art piece “Swimming Across the Atlantic”. It was performed by the artist, Alzek Misheff, who accomplished the artistic endeavour by swimming in the pool of the ocean liner, Queen Elizabeth II, traveling from South Hampton to New York as a comment on contemporary art at the time. In *Swimming Across the Pacific*, we plan to swim across the Pacific Ocean, from Los Angeles to Tokyo, in an airplane to transform it into a “bubble” containing a media arts festival for the same purpose. To do this we developed our virtual swimming locomotion interface as shown below so we can swim virtually rather than in real water as part of the transformation symbolism. While this swimming device is designed for placing in an airplane, anyone can try it to swim and enjoy the virtual water. Thus, as one part of the larger artwork, we designed and built an interactive installation around the virtual swimming apparatus called *Swimming Across the Pacific (installation version)*.

Equipment:
- 8 foot x 8 foot x 8 foot wooden frame
- hangliding harness, leg harness and pulley system
- 16 Polhemus Fastrak sensors (2 Transmitters)
- 1 PC for simulating VR environment including water simulation
- 1 Mac for simulating interactive sounds
- Sound system (mixer, amplifier, speakers)
- video projection system
Figure 1: Swimmer in swimming apparatus.

Figure 2: Avatar in virtual Pacific Ocean.

Figure 3: Exhibit layout.