VIRTUAL-LIMB

HEALTHCARE IT

Virtual and augmented reality program that enables early rehabilitation for amputees.

TECHNOLOGY SUMMARY
There are over 185,000 lower limb amputations in the United States annually. A major obstacle for many new amputees is early ambulation, as surgical wounds delay prosthetic use for a minimum of ten days.

VirtualLimb enables amputees and their families to experience a virtual limb through augmented and virtual reality. The system serves three functions: speeds rehabilitation following surgery, facilitates physical therapy, and creates empathy among non-amputees. VirtualLimb is collaborative, allowing clinicians to drop objects into the amputee’s virtual reality for tailored interactions. The amputees’ movements are tracked via motion bands on their lost limbs, mimicking the use of a prosthetic and beginning essential early post-surgical rehab.

FEATURES AND BENEFITS
- Facilitates early rehabilitation before surgical wounds have healed.
- Tracks user’s range of motion, providing data for future prosthetic design and therapy.
- Acts as an empathy machine, allowing non-amputees to experience the use of prosthetic limbs.

INVENTOR PROFILE
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