



imaging
research
center

Wearable Computing

Form Visualization



Infant Monitor "Thimble" wirelessly monitors an infant's non-critical statistics .



Xpod Next Generation Music Player featuring a closed loop emotional response system that selects music based on the listener's mood



Infant Monitor "Locket" wirelessly monitors an infant's non-critical statistics .

Human Literate Computers

Distinguished Professor Zary Segall conducts and promotes research in the area of wearable computers that are able to read human physiological and emotional states. Current projects include third-generation personal music players that monitor the wearer's emotions to select tracks and employ a neural network to learn a wearer's preferences, a voice-activated speech recognition-based mobile blogging device, and a system being developed in conjunction with John Hopkins Neonatal Intensive Care Unit to deliver physiologic and behavior triggered therapeutic sound to premature infants.

Exploring Form

Although the software architecture and feature set of a wearable device is of great importance, the styling and detailing of the physical device is also a vital consideration. Because wearable devices are both physically and virtually quite close to the body, considerations of fashion and aesthetics are brought to the fore. Building 3D models is a useful method for investigating form, as well as exploring issues of manufacturability and discovering formal metaphors for already familiar objects that may suggest how to use new devices.

Two interns at the IRC used Rhino 3D to design and create digital models of a number of handheld and wearable devices in support of professor Segall's transdisciplinary CMSC 691W wearable computing class.

Production Notes

Project Title: Wearable Computer Form Visualization

Course Faculty and Principle: Professor Zary Segall

Project Director for IRC: Dan Bailey

Lead Modeling and Designer: Chad Eby

UMBC Student Moderls: Anna Hansen, Joanna Lit

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