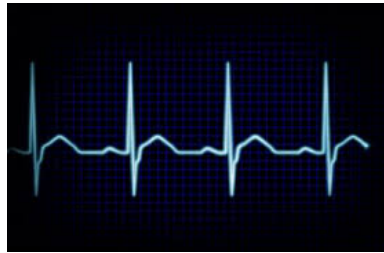


KICKSTARTER

AVUS – Active Vitals Update System



AVUS – Active Vitals Update System

AVUS is a system that remotely monitors the pulse of a subject from a distance. The system uses a camera to take video of the subject and analyzes that video stream to determine the pulse of the subject by timing the blood flow in and out of the subject's face. The system currently operates on PC, but will be optimized for production with an FPGA and integrated into a sleek housing along with the camera. The system will operate in conjunction with a phone app via Bluetooth to notify the user whether the subject's pulse has fallen out of the normal range, as can be specified in the app.

Motivation

The primary motivation behind the AVUS project is to reduce the risk of SIDS, or Sudden Infant Death Syndrome, in infants around the world. There is currently a large market for baby monitors, but most function merely as webcams that stream to a monitor for parents to either watch or listen to their babies. But these monitors do not perform any concrete calculations on the baby's vital signs. The few monitors that do are expensive and/or constricting to the infant. In addition, AVUS would serve as a general-purpose remote pulse monitoring unit for people with various health conditions.

Why you should donate!

We are currently still in the hardware development stage, transitioning from a proof-of-concept model to a production-ready prototype. As such, we will incur costs related to designing the housing of the product, as well as potentially converting our eventual chip configuration in to a production-ready application-specific chip.

What we will use your donations for

Your donations mean everything to us! We will use any initial funding to complete the hardware design. After that we will attempt to create a production-ready unit that will be feasible to mass produce.

The future of AVUS

To us, monitoring infants is only the beginning of where we see AVUS going. We see a use for accurate, remote vitals monitoring in hospitals and retirement homes, as well as in gyms in cardiovascular equipment.

Project by:



Team LSI
University of Virginia

First created: 12/11/13

Website:

<https://wiki.shanti.virginia.edu/display/Embedded/active+vitals+update+system+%28avus%29>

Pledge \$1 or more

You get to know that you are helping with a life-saving initiative!

Pledge \$20 or more

Get the opportunity to order test units from us and a 20% discount coupon on our production units!

Pledge \$50 or more

Receive the opportunity to order test units from us and a get a 50% discount on our first production units!

Pledge \$100 or more

Receive a test unit free of charge! Also get a 50% discounted retail unit!

Pledge \$500 or more

Guaranteed test unit and initial-batch unit! Get to have a skype interview with the team as well to give us any feedback/suggestions you may have!