



SOS

STRESS OUTSOURCED
Crowdsourcing Massage

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SOS explores how human connectedness can be used to relieve stress, using a real-time, web-based communication system with wearable units.

As the poet John Donne writes, “no man is an island, entire of itself”. This is especially true today as a result of the Internet. Through web mediums such as blogs, forum, and online communities, strangers from all over the world share their stories and ideas.

Unfortunately, one experience shared by many people around the world is stress. In this day and age, people often lead very stressful lives. Given that so many people around the world experience stress, surely we can empathize with each other. With so many strangers already connected through the Internet, is there a way people can help each other relieve stress?

The SOS system consists of wearable units distributed to people all over the world. Each unit consists of a signaling module, a response module, and a massage module.

A stressed individual can send an anonymous signal through the signaling module of the device, which is received by other wearers of device, who can choose to send back an anonymous haptic response with the response module. All the collective responses are combined in sequence to give the stressed individual a full back massage. While each respondents only spares one second to respond, the accumulated result is a realistic and therapeutic experience.

While we opted for a simple signal of touch, one dimension we have decided to add is to map the distance the response has traveled to different regions of the massage modules. For example, if you receive a response from someone in the same town, the massage stroke is stronger comes close to your spine while a response from the rest of your country and from overseas massages with weaker strokes farther from your spine. Over the course of the massage, the stressed can feel the diversity of the generous respondents through the spatial variety of physical sensations.

The massage module should cover the upper back and would naturally be attached to the back of an article of clothing. Since the core of our idea is the remote interaction of strangers and not the physical devices themselves, the signaling and response modules can take on a variety of forms, such as jewelry, necktie, scarf, and pillow.

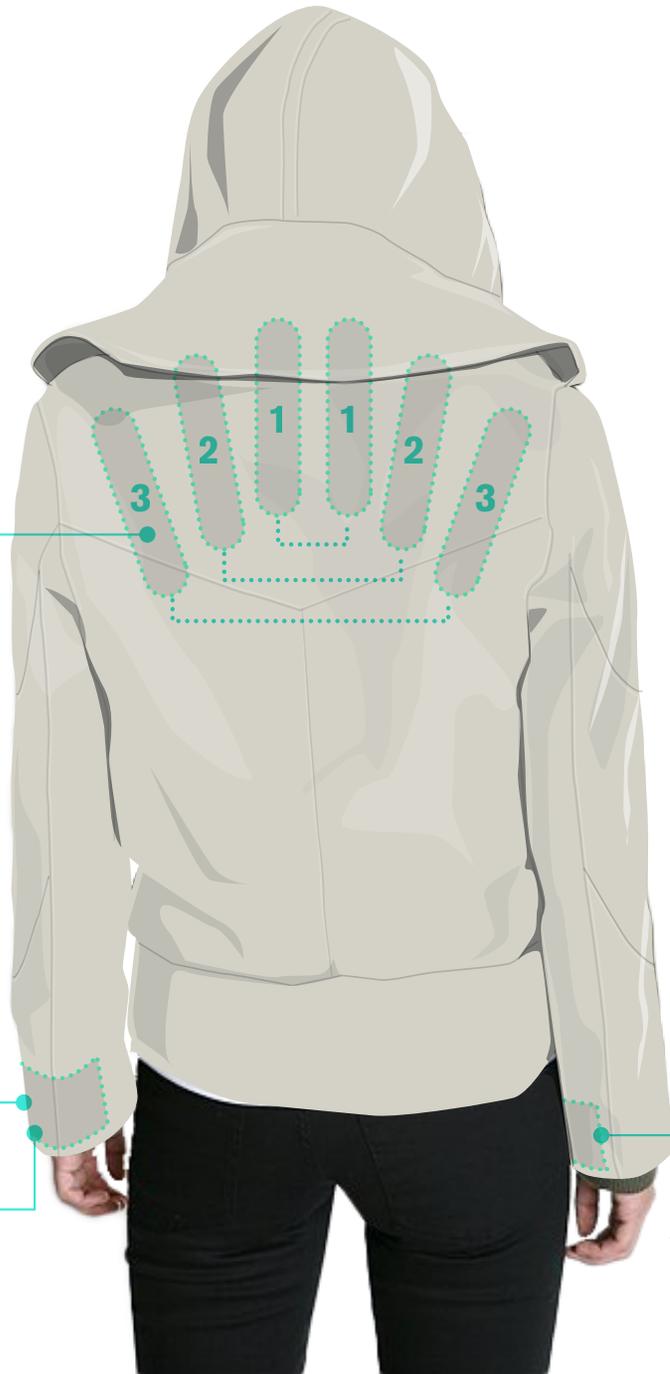
GET MESSAGE

three zones of solenoids or electrodes

Zone 1: 10-mile radius

Zone 2: within the same country

Zone 3: worldwide



RECEIVE SOS

SEND RESPONSE

SEND SOS

PROTOTYPES

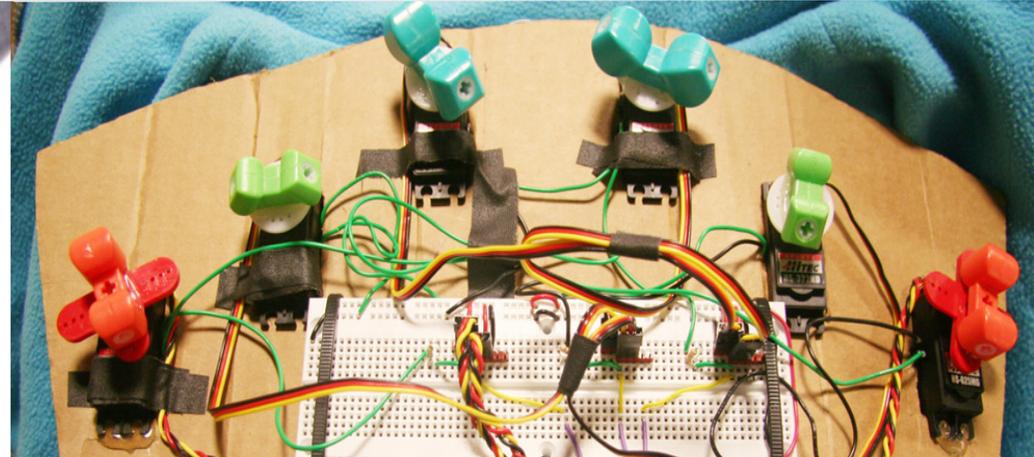


We have constructed an **initial prototype** that demonstrates the signal, response, and massage modules of the wearable device. Our prototype modules give the wearer a sense of what it feels like to send a signal, receive a signal, and receive a massage. They are not currently connected to the Internet yet.

Our prototype **signaling modules** are wristbands with a contact switch that activates when stressed individuals scrunch their sleeve in frustration. Response modules subtly vibrate to indicate an incoming SOS signal. These early prototypes demonstrate what it feels like to have a subtle vibration on the wearer's body. Our future signaling module will also be designed to take advantage of the natural movements of a stressed person. In addition, it will give feedback when a signal is being sent and has been sent. Sending a response will mimic the common gestures people make to calm down a stressed friend, such as applying gentle pressure with their hands.

The **massage module** currently consists of three pairs of motors connected to three switches. We can selectively turn on the switches to activate different parts of the module to give the wearer a massage. Although our prototype currently uses bulky motors and massage pieces, the massage actually feels very comfortable. For the 80+1 event, we will create better wearable modules with more streamlined actuators.

* In addition to removable bracelets on the cuffs of a jacket, we are exploring other wearable forms of signaling and response units for the 80+1 event.





With the rise of crowdsourcing, we rely on collective interests and anonymous generosity more than ever.

For the Ars Electronica event, we will create 5-10 wearable SOS units and distribute them to participants at the event. These units will be connected through the Internet, and wearers will be able to signal and respond to each other to receive messages.

CONCLUSION

SOS: Stress Outsourced explores how human connectedness through modern technology can help people relieve their stress. By publishing the stress problem to the world, people may break the boundary of time zone, distance, space, and existing social networks. No matter when and where people need help, they are likely to find someone somewhere in the world to provide real time feedback. Through tangible, haptic interactions, SOS connects anonymous strangers from all over the world and fosters an awareness of a global community.

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