



The Genie Beads

*A tangible interface based
on the mala*



A mala is a wrist-worn set of beads that serves as a mantra. In a broader sense, it can be used to communicate with ghostly beings, e.g., agents. Our Genie Beads are designed to provide a tangible interface to mobile agents.



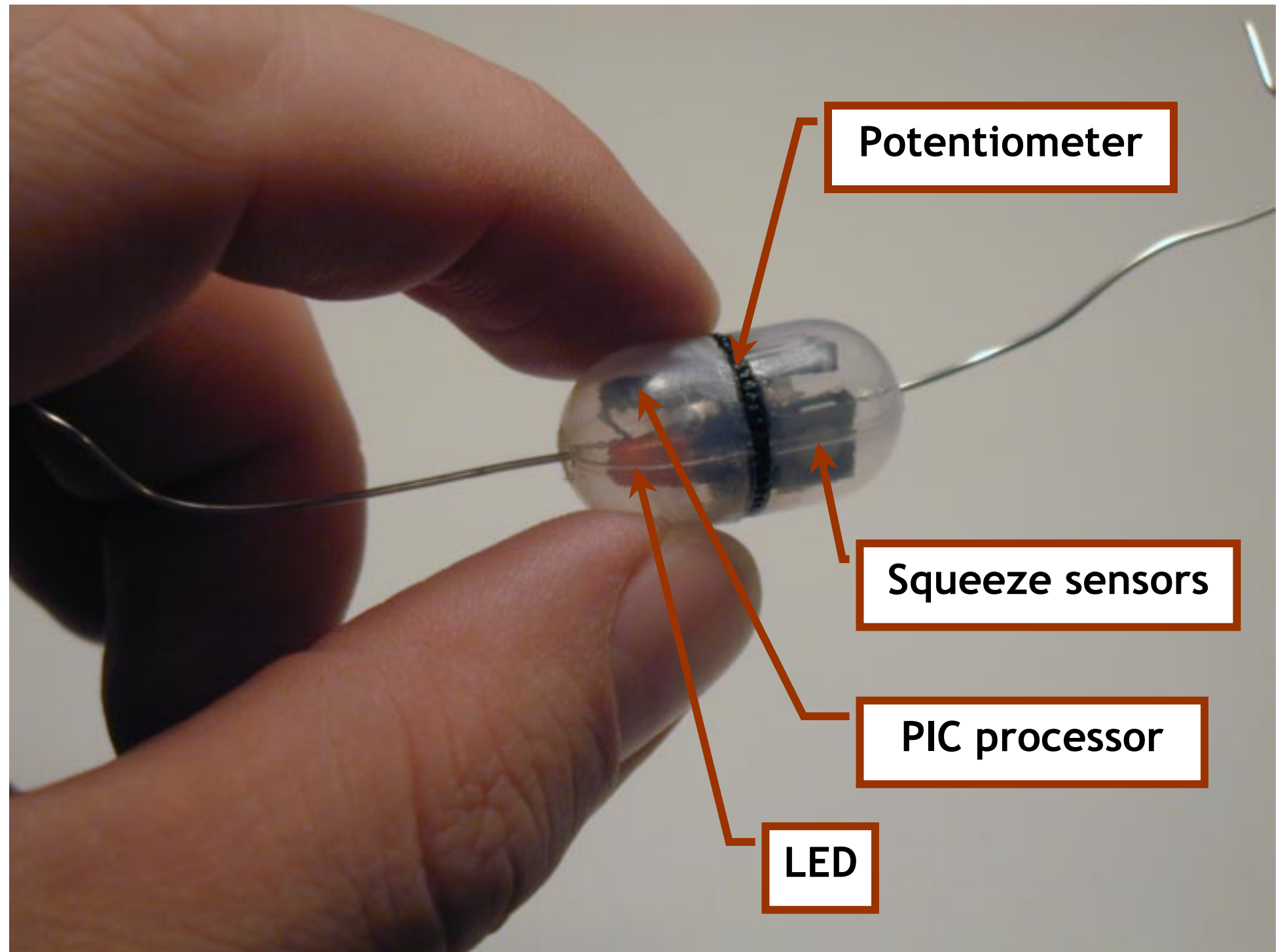
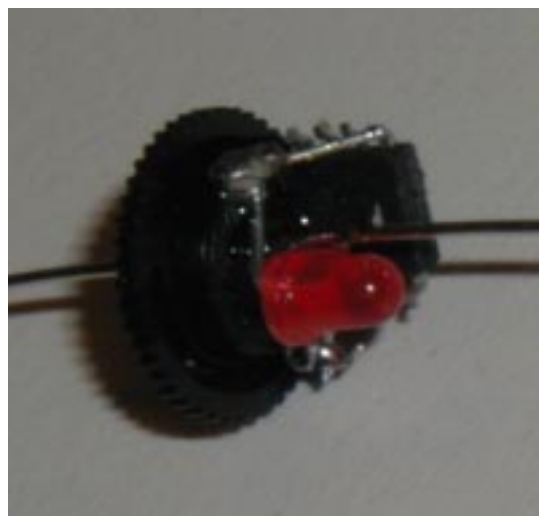
Scenario

I sit in a meeting. My pager vibrates all the time, sending me too many email messages. But I have a set of Genie Beads around my wrist. Some of the beads are bright, some of them dark. I take the band off my wrist and hold them in my hand, sliding with my fingers along the beads. When my thumb reaches the one bead that influences my *Openness to Telecommunication*, I roll the bead a little to one side. It slightly dims down, indicating the parameter change, and I squeeze it to submit this information. After that, my pager stops vibrating all the time.

Technology

Each bead contains a potentiometer, an LED, a PIC chip, and some squeeze sensors.

Rolling the bead make the potentiometer turn, which modifies the current that drives the LED as well as the A/D input of a PIC chip. The PIC generates serial data that is transmitted wirelessly with a RF transmitter to the application that can contact the mobile agent. (Eventually, Bluetooth will simplify the transmission and interfacing to the applications.)



Note: This is a mockup.

Background of the mala and prayer beads

Malas have been used as a part of an integrated spiritual practice that also may contain puja (worship), scripture reading, meditation, hatha yoga, and other techniques. All spiritual progress is gradual, as is emotional healing. Mantra repetition using a mala can be very relaxing and soothing, and also helpful in keeping one's mind focused on spiritual principles during stressful times.

The traditional number of mala beads is 108 in the Buddhist, Hindu and yoga traditions. However, many prefer a smaller mala which is easier to use and carry. For that reason, many malas are a fractional number of beads and can be worn around the wrist or neck, or carried in a pocket. Muslim and certain Christian traditions use 33-bead malas, they call it "prayer beads" or rosaries.



Deva Seetharam and Stefan Marti, October 13 2000