

# Expressing Human State via Parameterized Haptic Feedback for Mobile Remote Implicit Communication

Jeffrey R. Blum and Jeremy R. Cooperstock

McGill University, Shared Reality Lab

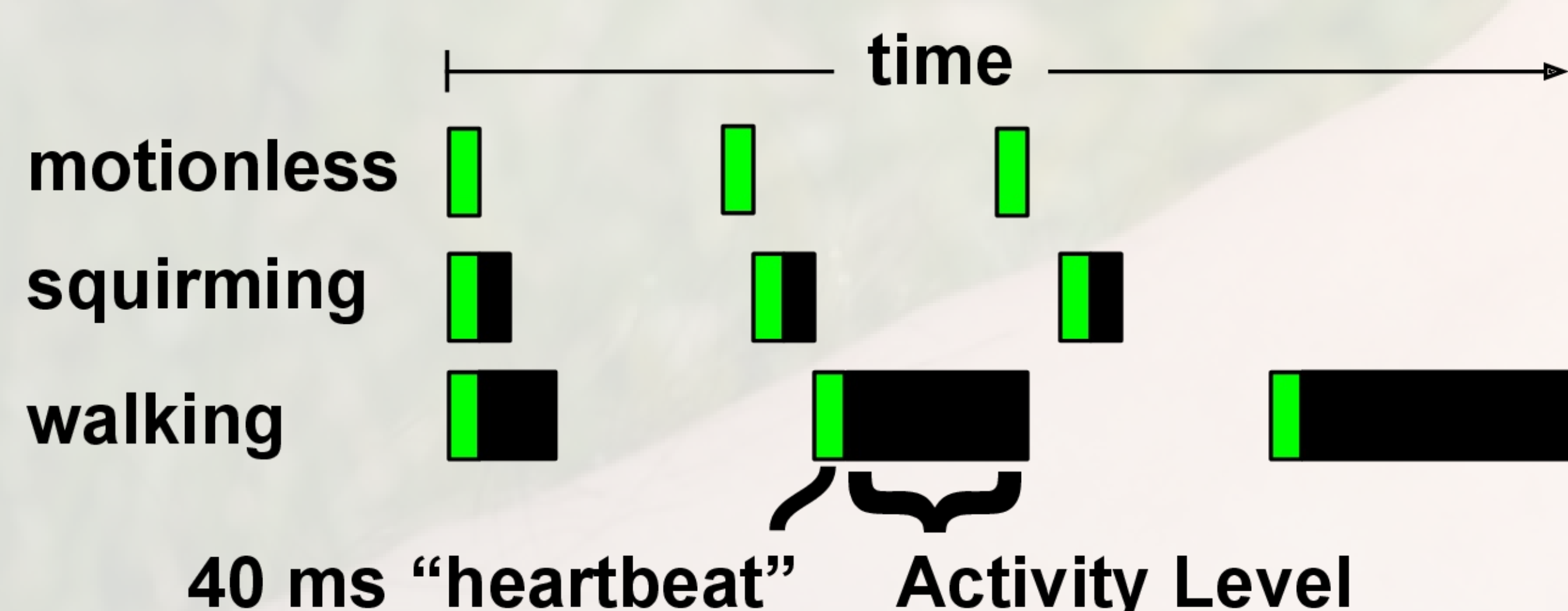
Centre for Interdisciplinary Research in Music Media & Technology

## Hypothesis

For two people in an existing relationship, receiving a frequent haptic summary of their partner's leg motion will result in ongoing background implicit communication that provides useful information and changes their behaviour.

## SenseProxy

Use accelerometer to measure three axes of motion on partner's leg. Send this every 12 seconds, and vibrate with three pulses, one for each axis, with longer vibrations when there is more motion.



User study participant c01b :

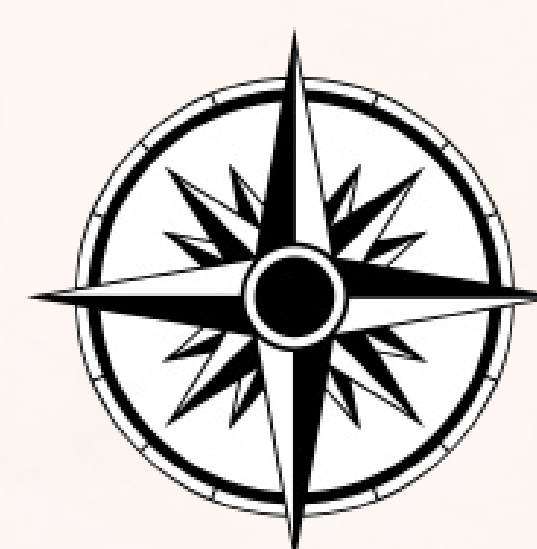
"I noticed that essentially all the communication we have as a couple is 'I'm leaving now' or 'I'll be there at 10'. ... Wearing the watch has basically eliminated the need to communicate via text between us in that regard. We know when each other is leaving for work because we can feel it."

But, individual pulses for three axes were not found useful...

## Other parameter options?



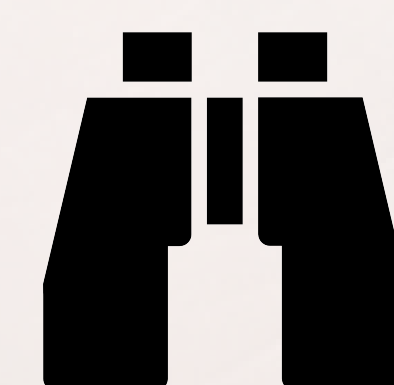
**Heart rate:** Running to catch bus?



**Orientation:** Facing desk or at kitchen table?



**Velocity:** Not walking... on bus coming home?



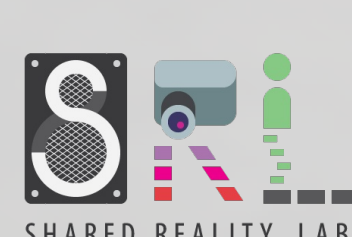
**Distance:** Getting closer or further away?



**Noise:** Still at the library, or in cafeteria?

- Use pulse duration & spacing
- Use spatial or temporal patterns

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<http://srl.mcgill.ca>