

# Lovelet: A Heartwarming Communication Tool for Intimate People by Constantly Conveying Situation Data

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## WHAT IS REQUIRED TO CONVEY AFFECTION

Today, various personal communication tools have been widely used and people can mutually communicate at anytime and anywhere. However, it is still difficult to convey delicate feelings, e.g., affection, by using such tools. A possible reason of this difficulty is lack of real-time awareness on mutual situation, timely action and non-verbal information. For instance, when out for a walk in the snow, you might say “mind your step, it’s slippery” to your dear partner and reach out for him/her. Such timely verbal and non-verbal actions convey your delicate feelings to the partner. On the phone, you can partially convey such feelings by voice, tone of voice, intonation and so forth. However, it is impossible to always piece out the situation of the partner by the phone, e-mail and so on, and hence it is also very difficult to timely react to the partner’s situation.

## “LOVELET” FOR COMMUNICATING AFFECTION

We propose “Lovelet” that is a wearable communication tool for intimate people to naturally and timely convey affection. Figure 1 shows the setup of Lovelet. The thermo-sensor always senses air temperature surrounding a user (user-1), the temperature data is transmitted to the partner (user-2), and the full-color LED in user-2’s Lovelet illuminates in different color depending on the temperature. When user-2 finds that user-1 is in the cold, user-2 can warm user-1 by touching the touch-sensor in user-2’s Lovelet to electrify the peltier device in user-1’s Lovelet.

We implemented prototype using a PIC Network Interface Card Kit (TriState inc.) and a laptop. We conducted experiments with two couples for twenty days. We confirmed that the subjects naturally executed “heat communication” reacting to the change of the partners’ temperature. Additionally, they often used Lovelet together

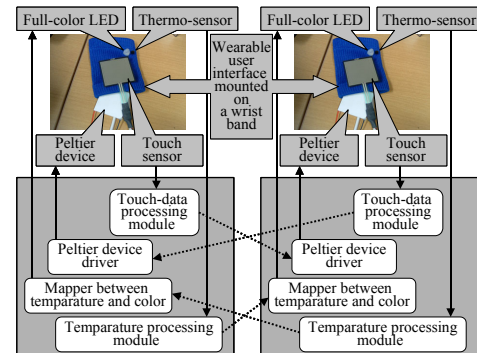


Figure 1. Setup of Lovelet

with conventional communication tools, e.g., telephone and text chat, for parallel conveying delicate feelings.

## RELATED WORKS

“Family Planter”[1] attempts to convey awareness of mutual existence between family members who live in the distance for fostering a sense of identity of the family. “Digital Family Portraits”[2] iconically displays daily activities of a family member living in the remote location on a picture frame. However, it is not equipped with a communication channel for responding to the displayed information. “Connexus”[3] has almost similar setup to Lovelet, but it does not make much of conveying the awareness of surrounding situation.

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