

# Reviews of 1009 TaskHerder: A Wearable Minimal Interaction Interface for Mobile and Long-lived Task Execution

## Reviewer 1 (reviewer)

*Relevance to the conference topics (1-3)*

Very relevant

*Significance or quality of contribution of the paper (1-5)*

Significant contribution

*Quality of the presentation (1-5)*

Good

*Overall Rating (1-5)*

Probably accept: I would argue for accepting this paper

*Reviewer's Expertise (1-5)*

Knowledgeable: I have some expertise in this area: I've worked in the area and follow its literature

### DETAILED COMMENTS

The paper presents a prototype that is based on a e-paper display positioned on the arm to provide notifications and minimal touch-based interactions. The goal is to use it when users have their hands busy for some tasks and thus could not support interactions with personal devices.

The paper is clearly written, and provides an interesting potential solution in terms of wearable device for minimal interaction. The initial experiences with users should be reported more in detail.

## Reviewer 2 (reviewer)

*Relevance to the conference topics (1-3)*

Very relevant

*Significance or quality of contribution of the paper (1-5)*

Significant contribution

*Quality of the presentation (1-5)*

Good

*Overall Rating (1-5)*

Probably accept: I would argue for accepting this paper

### *Reviewer's Expertise (1-5)*

Passing Knowledge: I have a passing knowledge of this area: I read or otherwise follow the area to some extent

### *DETAILED COMMENTS*

The contribution is a wearable armstrap designed for minimal interaction while achieving manual tasks. Thanks to a flexible e-ink display, users can check the display at a glance. Two basic touch gestures are recognized (capacitive touch input) thanks to copper-base sensing lines. An interesting property is its ability to recognize touch gestures without bare hands (e.g., such as wearing a glove).

At the technical level, this device seems robust and fully functional. My concern is about section 4 related to the implementation of the device. The section is very technical and, although having little knowledge in electronics, I had difficulties to understand Figure 2. Explanations are welcome. At software level, examples are welcome to illustrate how to communicate with the device.

At the scientific level, it raises usability issues. I would expect explanations about the readability of the display if located on the upper arm. Indeed, with the actual location, I feel I need to move the arm in an uncomfortable position as well as the head. Why not on the forearm? This could be improved with a mini scenario.

## **Reviewer 3 (reviewer)**

### *Relevance to the conference topics (1-3)*

Somewhat relevant

### *Significance or quality of contribution of the paper (1-5)*

Limited incremental contribution

### *Quality of the presentation (1-5)*

Average

### *Overall Rating (1-5)*

Probably reject: I would argue for rejecting this paper

### *Reviewer's Expertise (1-5)*

Knowledgeable: I have some expertise in this area: I've worked in the area and follow its literature

### *DETAILED COMMENTS*

This paper presents TaskHerder, a wearable device worn on the sleeve composed of e-paper and capacitive touch input. TaskHerder is presented as useful for mobile work situations in which quick inputs or checks have to be made.

While the proposition is interesting, the contribution of the paper is not clear enough at the moment. On the systems side, TaskHerder builds on common technologies, the assembly is well detailed, but I was left wondering what is novel about the proposition. On the interaction side, the proposition relies on basic touch and capacitive sensing. On the application side, the mobile work use case is convincing but treated in a very cursory manner, without an in depth analysis of mobile work tasks or the specific interactions they would have to perform (which could have been done through observations, interviews or elicitation).

While one cannot discuss the related work in all its depth in a short, some very relevant work is left out. The PrintScreen project, and a lot of the research conducted at the HCI lab of Saarland

University would really deserve to be cited and discussed as they are quite related to the technology presented in the paper, but involve a more integrated construction approach mixing input and output.

I would encourage the authors to develop the type of interactions and tasks their device can support. Maybe spend less on the software side which is not particularly original.

To summarise, this would make an interesting demo, but in its current state, the paper does not properly articulate its contribution at a systems or interaction level.