A Casual with an Object-finding Support System

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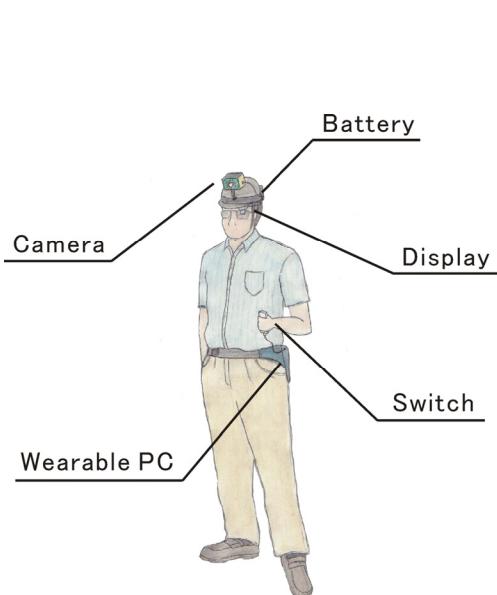
Figure 1: Old Version   Figure 2: Proposed Version
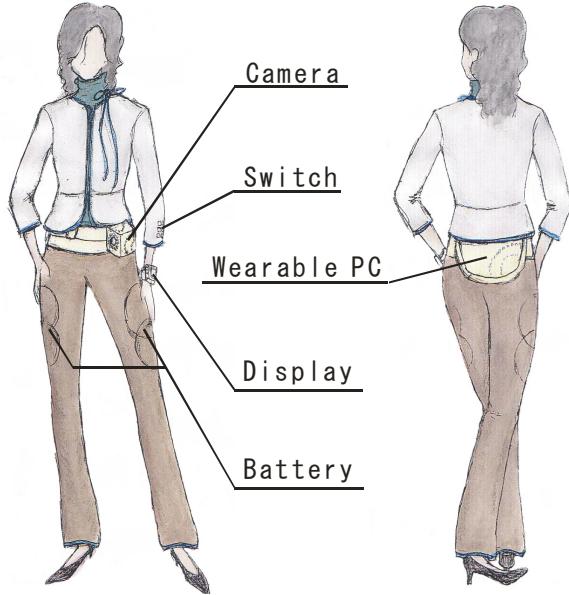
We propose a casual design for an object-finding support system in order to make the system to be common as a fashionable outfit with a wearable computer. We have designed and implemented an object-finding support system named "I'm Here!" [1]. This system retrieves the last recorded video of a user's viewpoint including a handled object from a video database (Figure 1).

The aim of our proposed design is to achieve a casual wearable system that a user really wants to wear in her dairy life. The important point of view for a casual design is not only wearability but also its appearance. Therefore, the intelligent wear equips a belt-on PC, a belt-on camera, leg-on batteries, a wrist-on display, and a sleeve-on switch (Figure 2). Our targets are women from 20 years through 34 years of age. They might have much effect on a popularization of a wearable fashion because they come under the influence of fashion. We assume an office as a scene performing the system. Additionally we select the following concepts: "simple," "neat," and "feminine." Therefore, we design pants with a basic color. We adopt curvy line as a stylish design to emphasize "softness" and rhinestones and ribbons to insist "dressiness" because worn equipments give us plumped silhouette.

Belt-on Camera: We have decided not to set any equipment on user's head because women in general don't prefer their hairstyle or their make-up to be messed up. Furthermore, her neck and shoulders get more and more tired if the equipment is set on her head. On the other hand, the women might show a less resistance to the belt-on camera because of a fashion of a waist bag. We have developed a wearable camera [2]. This camera can extract a color region of an object, which is held by the user, under the condition of outside light like by-the-window using an active blinking infrared LED array.

Leg-on Batteries: We focus on a femur area to set batteries for performing a set of wearable equipment. A developer can simplify a configuration of wearable equipment by adopting belt-on batteries. The style however gives a user a frumpy appearance because of an over-decoration for instance of a PC, a camera, and batteries. Therefore, we adopt leg-on batteries. A set of two-batteries are placed in front of both left and right femur and are stored in each pocket.

Wrist-on Display and Sleeve-on Switch: The user wears a display on her left wrist like a wrist watch. Also, switches for operations of the object-finding support system are set at the left side sleeve of her jacket in order to facilitate her to control the system with looking at the wrist-on display at the same time.

[1] T. Ueoka, T. Kawamura, Y. Kono, and M. Kidode: I'm Here!: a Wearable Object Remembrance Support System, *In Proc. 5th International Symposium on Human Computer Interaction with Mobile Devices and Services (MobileHCI2003)*, pp.422-427, 2003.
[2] T. Ueoka, T. Kawamura, S. Baba, S. Yoshimura, Y. Kono, and M. Kidode: Wearable Camera Device for Supporting Object-Triggered Memory Augmentation, *In Proc. 3rd CREST/ISWC Workshop on Advanced Computing and Communicating Techniques for Wearable Information Playing*, pp.46-53, 2004.