

Ultrasonic Electronic Pen



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Abstract

An easy to use input device to replace computer keyboards is needed because people in various businesses and generations come to handle computers at their offices, schools, homes, and on street corners, etc. While handwritten computer input is not new, all such inputs so far have required the use of a touch panel or tablet. However touch panels require dedicated displays, and their surfaces are much too slippery to write on comfortably. Tablets, on the other hand, require much more desk space and the larger sized products that have them can be expensive. In response to this situation, we have developed a wireless electronic input pen that requires no special pad.

Technology

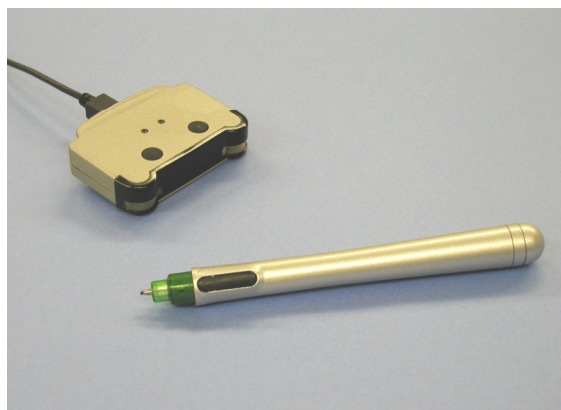
We have developed an electronic pen that uses ultrasound. The ultrasound is generated from the special pen, and the pen position is calculated when the ultrasound propagates to a receiver that is fixed to a computer screen or paper.

- Accurate handwriting input with ultrasound without special pads or paper
- Unique ultrasonic detection method for accurate and precise measurements with a compact device (0.1 mm resolution)
- No blind spot in writing areas caused by corners in the receiving device

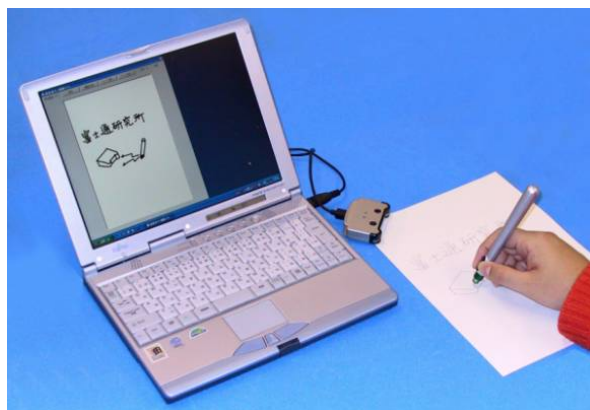
Application Examples

The pen can be useful in any situation in which inputting handwriting electronically is more effective or efficient.

- e-Learning (remote education with electronic correction of exam answers)
- Fixed forms (build a database from order forms, application forms, and questionnaires)
- Medical reports (online digitizing of medical diagnosis reports)
- Handwriting memos (receiving telephone for conferring and brainstorming)



Electronic pen and receiver



Example of use