Wearable handwriting input device using magnetic field

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Abstract: In this paper an efficient technique is proposed for wearable handwriting input through magnetic field. This system requires putting a permanent magnet onto fingertip and detecting the magnetic field generated by the magnet through magnetic sensor at the wrist of the other hand. The position of magnet is calculated by vector of magnetic field. And a method is proposed to avoid geomagnetic influence by using two magnetic sensors. A prototype device is made and we succeeded to get the trajectory of handwriting input character.

Author Keywords: Geomagnetic influence; Handwriting input; Magnetic sensor; Wearable device

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