

# Review of: "Design and Realization of a Low-Cost Smart Walking Aid for Visually Impaired and Blind People"

Mohamed Boumehraz<sup>1</sup>

<sup>1</sup> Université de Biskra

**Potential competing interests:** No potential competing interests to declare.

In this paper, the design of an aid system for visually impaired or blind people is proposed. The system consists of a stick provided with distance and water sensors to detect lower obstacles and the presence of water. A second ultrasonic sensor mounted on glasses is also used for obstacle detection. A GPS/GSM module is used to send SMS messages to third parties in the event of an emergency. A buzzer and vibrator are used to signal warnings. An Arduino Uno board is used to manage the system.

On page 3, it says "identifying obstacles", it's more correct to use the word "detecting". An ultrasonic sensor detects obstacles, not identifies them.

When the person is moving, the ultrasonic sensor's measurements will be affected by errors. What approach is used to minimize the effect of measurement errors?

It's best to use a smaller Arduino board, such as the less expensive Arduino Nano, Arduino mini or Arduino micro, or just a board based on an Atmega328 microcontroller, to keep system costs down.

The flowchart shown in figure 4 is badly organized and needs to be rearranged.