Project Exhibition

WEARABLE ASSISTIVE DEVICE FOR BLIND

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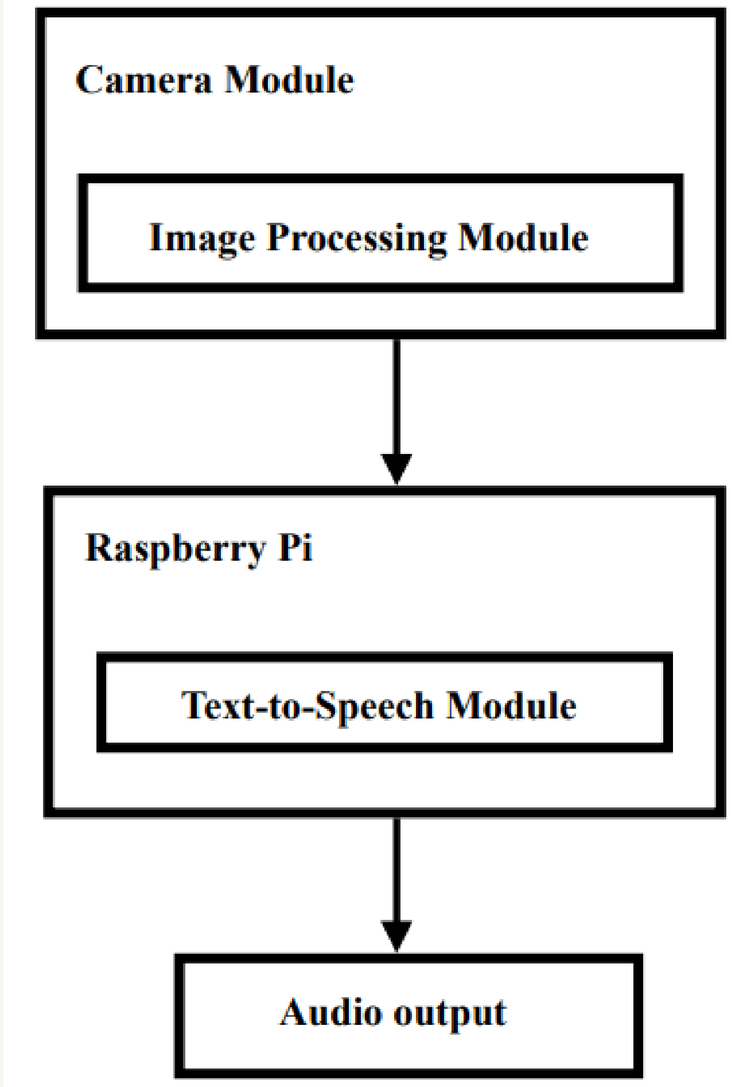

The wearable device consists of a camera module and headphones/speaker connected to a Raspberry Pi. The camera module captures an image of the text to be read and sends it to the Raspberry Pi. The Raspberry Pi then uses optical character recognition (OCR) software to convert the image to text, and a text-to-speech (TTS) engine to read the text aloud through the headphones/ speaker.

Fig. 1 : System Architecture

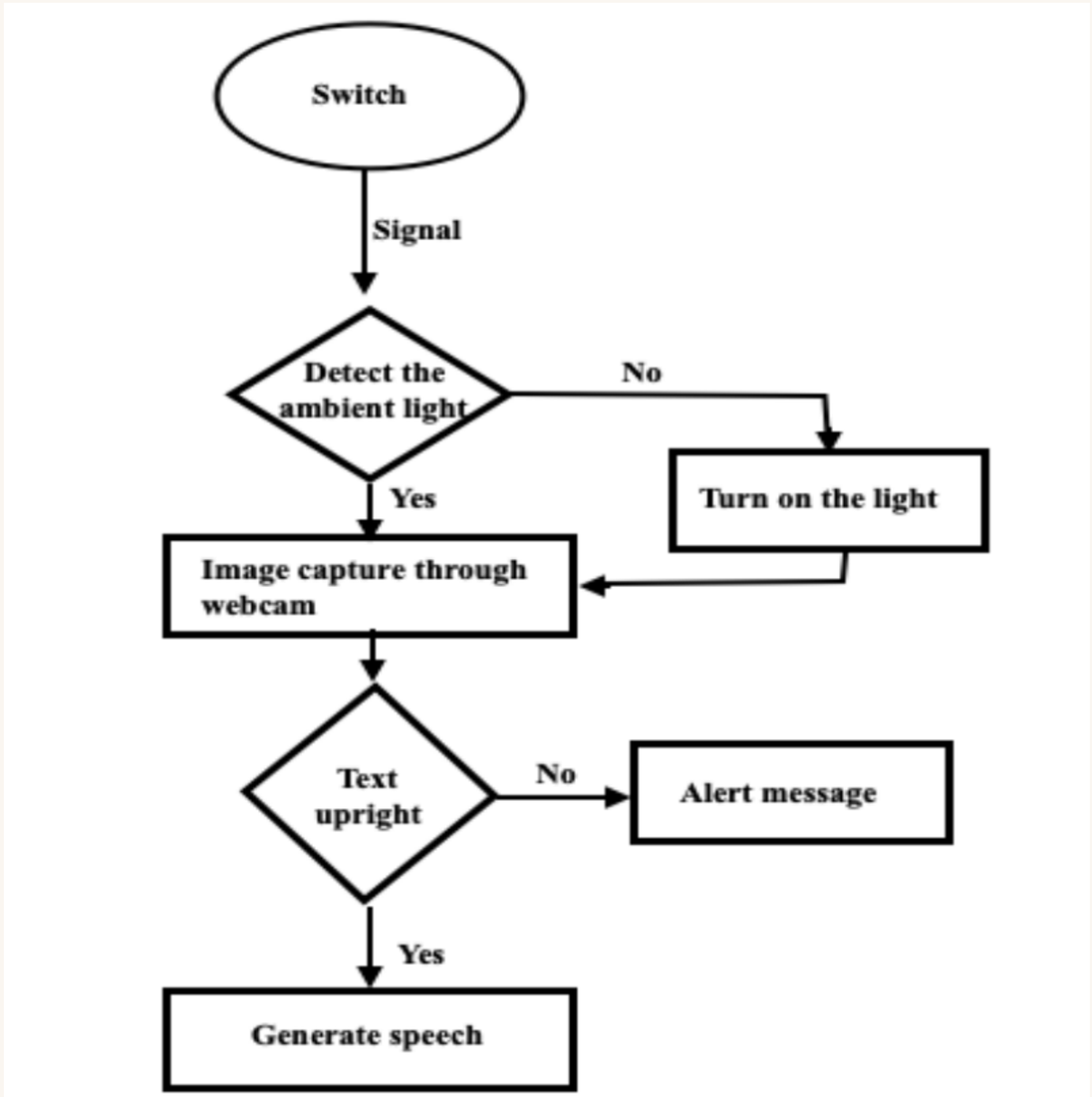

Fig. 2 : Flow chart

The system described above is an innovative combination of hardware and software components designed to facilitate a seamless user experience. It utilizes a Light Dependent Resistor (LDR) sensor to detect the ambient light conditions and automatically turn on the light as needed. Additionally, it incorporates a webcam that captures images, which are then enhanced for optimal clarity and visibility.