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# A Versatile IoT Development Board for Environmental Sensing and Biometric Applications

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This paper presents the design and development of a versatile IoT development board, capable of interfacing with a variety of sensors for environmental interaction. The selection and integration of components, circuit design considerations, and generation of a 3D-printable enclosure are discussed in detail. A theoretical power consumption analysis is provided, along with test programs to validate board functionality. Furthermore, the paper explores the board's integration with a popular programming framework, demonstrating its compatibility and potential for scalable applications. A specific example of gait-based person recognition is presented, utilizing a multi-node network of these boards to collect and process data for biometric identification.

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