

Design of a distance measurement and display circuit using an ultrasonic sensor on the Galileo 2.0 microprocessor platform.

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Abstract: In the modern context, the ability to measure and display distance information quickly and accurately is a critical requirement in many fields such as automation, industry, and traffic safety. This topic focuses on designing a distance measurement and display circuit based on an ultrasonic sensor, implemented on the Galileo 2.0 microprocessor platform. The objective of the research is to build an efficient integrated system to meet practical needs for accuracy and reliability in the measurement process. The approach includes theoretical study of ultrasonic sensors, electronic circuit design, microprocessor programming, and experimental implementation on the Galileo 2.0 platform. The expected result is a system that can be widely applied in fields requiring automatic distance measurement.

Keywords: Ultrasonic sensor, Galileo 2.0 microprocessor, Measurement system