

Design of an 8x16 LED matrix, single LED, and button control circuit using the Intel Galileo 2.0 microprocessor.

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Abstract: This is a Capstone Project aimed at designing and building an 8x16 LED matrix control system and individual LEDs through connection with the Intel Galileo 2.0 board. The project context is defined by the need for multi-point display screens in practical applications such as graphics, entertainment, or data monitoring. The project's objective is to develop a system capable of efficient display and meeting electronic and programming requirements. The research method combines theory with experimentation to optimize system performance and functionality. The expected results not only contribute to advancements in LED technology but also provide a flexible solution for future application developers.

Keywords: LED matrix, Intel Galileo 2.0, electronic circuit design, display control