INTRO PAGE

1. Digital I/O – switch >> switch that turns on
2. Digital I/O – interrupt-based debouncing >>
3. Digital I/O – LED >>
4. Analog Input >>
5. Analog Output (PWM) – hardware-based; OR software-based “bit-banging” >>
6. Serial I/O – hardware based; polling OR interrupt mediated
7. LCD – simple text display; OR: bit-mapped graphics, including sprites, line or pixel art
8. Timers – other than debouncing or PWM

Cite your source

UART etc etc copy off functions

detect smoke with the analog system

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**Video presentation (4 marks)**

Supplied video is excellently scripted, presenting all aspects of claimed functionality in a careful and clear manner, and meets timing requirement.

**Report Introduction (2 marks)**

Introduction provides succinct but comprehensive coverage of the use case targeted by the application, its value proposition, and how each claimed learning outcome is showcased. Introduction accurately and clearly describes how each component contributes to the overall functionality of the application.

**Schematic Diagram (2 marks)**

All components appear in the schematic diagram. Each component has a carefully chosen name, the connections between components are clear and unambiguous. All components are thoughtfully laid out and the overall presentation of the diagram ensures that it will be easy for users to assemble the application.

**Wiring Instructions (0.5 marks per learning outcome)**  
Wiring instructions clearly and without ambiguity define every component and hardware connection in the application.

**Functionality (1 marks per learning outcome)**

Feature works flawlessly according to expectation.

**Demonstration (0.5 marks per learning outcome)**

Demonstration indicates that feature works flawlessly according to expectation.

**Integration (2 marks per learning outcome)**

Report sets out clearly how each claimed learning outcome is showcased by your application, and describes how each component contributes to the overall functionality of the application. Clearly documented software dependencies in the source code relate this feature to other components of the application.

FURTHER EXTENSION

A close up of text on a white background

Description automatically generated

A screenshot of a cell phone

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A screenshot of a cell phone

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