

Smart Home System

Final Project for

ITI Embedded System University Program

MSA Group 2 B 23

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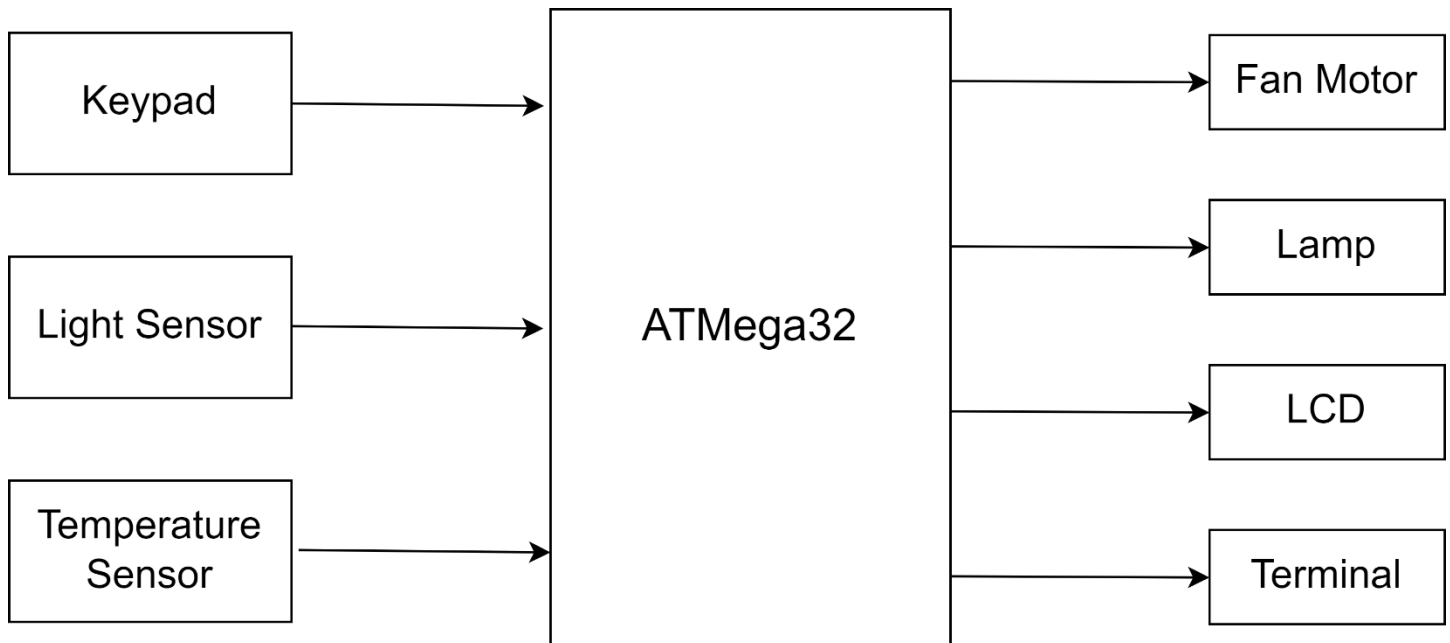
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Description:

- A smart home system that controls a motor fan and a lamp.
- The system shall have an admin panel that requires the user to log in on startup.
- After 3 failed login attempts, the system will halt and require a reset.
- The system is connected to light and temperature sensors to sense the surrounding environment.
- According to the sensors' values, the system shall automatically turn on or off the fan and the lamp.
- The system shall have a way to manually turn on/off the fan and the lamp.
- The system shall send log messages to a terminal through UART, alternatively, a Bluetooth module can be used instead of the terminal to inform the user about system actions.

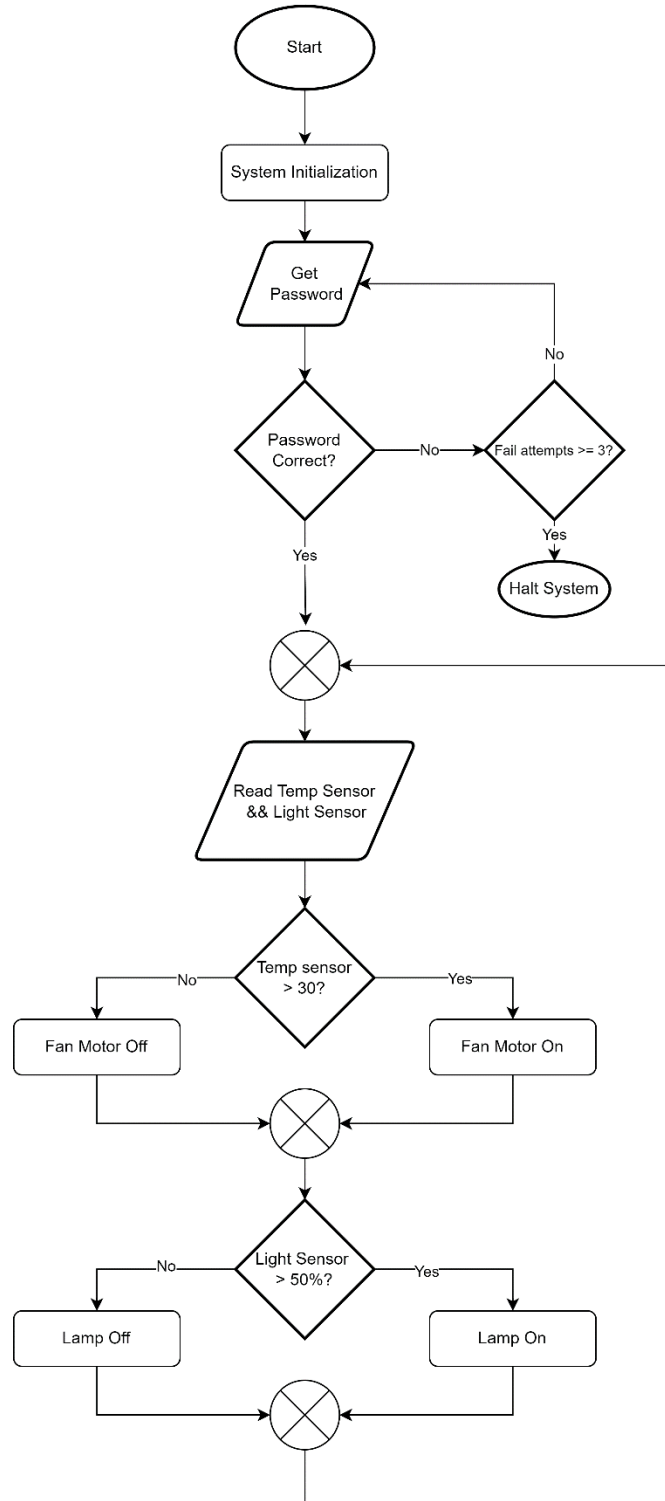
Block Diagram:



Peripherals used:

- GPIO
- ADC
- External Interrupts
- UART

Flow Chart:



Initial Circuit Design:

