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ENSE452 Project Proposal

What will the application be?

The application will emulate an elevator control system. It will allow a user to start with the up/down arrows to open the door, open/close the door, select a floor, and hit an emergency stop button. The elevator will move up and down 4 floors and stop at the selected floors.

Breakdown

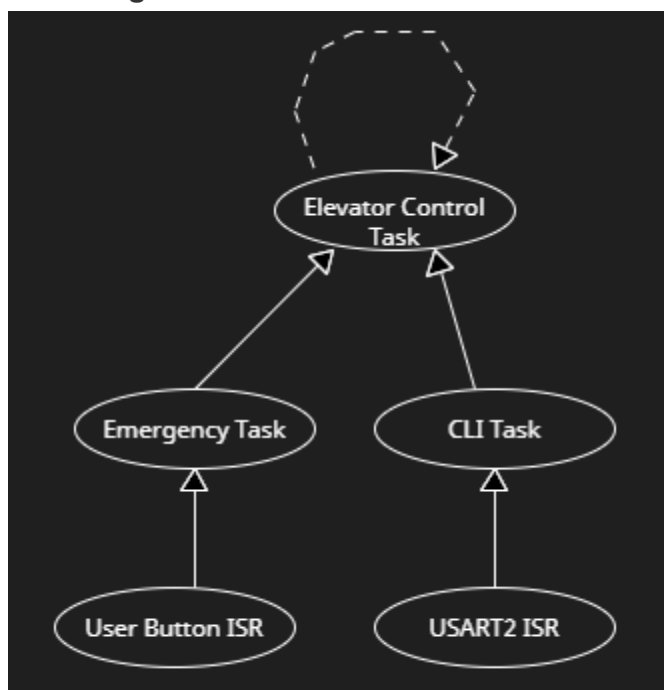
Tasks

- Elevator control - main task, moving the elevator up and down
- CLI - process terminal inputs to determine user input of floor selection, open, up/down selection as well as output what floor the elevator is on.
- Emergency Stop - receive command from user button interrupt and stops the elevator control task.

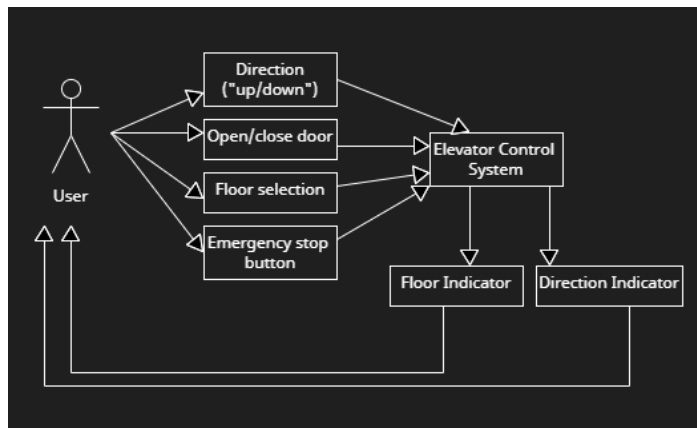
ISR

- USART2 interrupt - receives input from keyboard
- User button - for emergency stop, interrupts elevator control task by sending a message to the emergency stop task which handles the task of stopping the elevator control.

Task Diagram



Use Case



State Diagram from controller perspective

