Elevator Arduino Shield Pseudocode
Dec 13, 2023
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This is the basic sequence in pseudocode. Lots of details are in the actual Arduino sketch having to do with names of devices (buttons, stepper, etc.), variables, etc. and sending signals to buzzers and LCD. But those details all depend on a lot of implementation specifics.

```
//Initialize Sequence
//Floor Request Button State Variables
 Bottom = HIGH
 Middle = HIGH
 Top = HIGH

 SendElevator to bottom floor //Stepper command to send elevator to bottom floor

Floor = 1 //Set Floor Indicator Variable to 1

 //Door servos are myservo1, myservo2, myservo3, Close writes command to close that door
 Close 1
 Close 2
 Close 3
//Done Initializing

//Main Loop
LCD "Floor Request"
//Loop until a floor request button is pressed, which sets that variable to LOW
While (Bottom && Middle && Top == HIGH)
        {Read BottomRequestPin, MiddleRequestPin, TopRequestPin}

if Floor = 1 //If at Floor 1 when request is made, shut door, and move to the requested floor
        Close 1 //Close door before leaving
                if Middle == LOW   //Test if requested floor is Middle
                        SendElevator to Middle Floor //Move to the Middle floor
                        Floor = 2 //Setting floor variable not to 2
                        Open 2
                if Top == LOW   //Test if requested floor is Top
                        SendElevator to Top Floor //Move to the Top floor
                        Floor = 3 //Setting floor variable to 3
                        Open 3
If Floor = 2 //If at Floor 2 when a request is made, shut door, and move to the requested floor
        Close 2 //Close door before leaving
                if Top == LOW   //Test if requested floor is Top
                        SendElevator to Top Floor //Move to the Top floor
                        Floor = 3 //Setting floor variable to 3
                        Open 3 //Open door 3
                If Bottom == LOW //Test if requested floor is Bottom
                        SendElevator to Bottom Floor
                        Floor = 1 //Set floor variable to 1
                        Open 1 //Open door 1
If Floor = 3   //If at Floor 3 when a request is made, shut door, and move to the requested floor
        Close 3 //Close door before leaving
                if Top == LOW   //Test if requested floor is Top
                        SendElevator to Top Floor //Move to the Top floor
                        Floor = 3 //Setting floor variable to 3
                        Open 3 //Open door 3
                If Bottom == LOW //Test if requested floor is Bottom
                        SendElevator to Bottom Floor
                        Floor = 1 //Set floor variable to 1
                        Open 1 //Open door 1
End of Loop
```