

The purpose of this document is to demonstrate the versatility of the ButterflyMX elevator control system (ECS) by using a few specific use-cases. These are all real-world scenarios where the ButterflyMX system has been installed with elevator controls. This document assumes that the reader has a basic level of familiarity with our hardware, for example making sure one wire is terminated to B, and one to IN. For additional documentation on our elevator control system refer to:

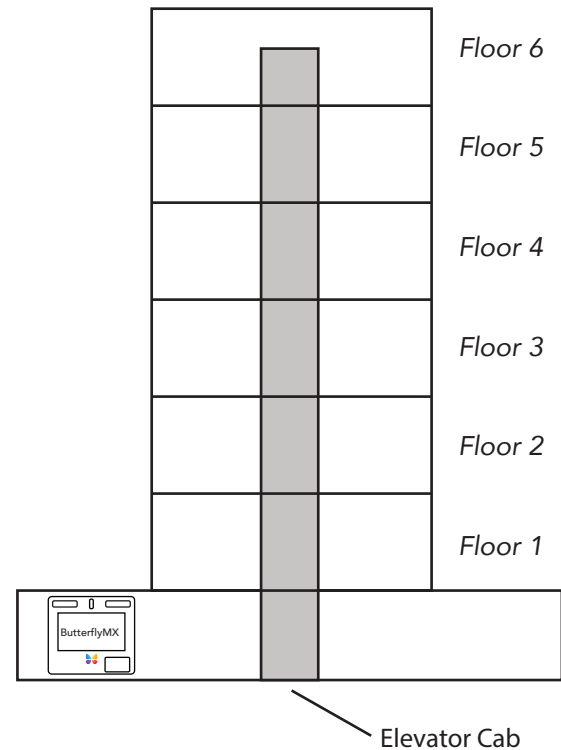
<http://butterflymx.com/resources>

Scenario 1: "I want a floor-by-floor lockout."

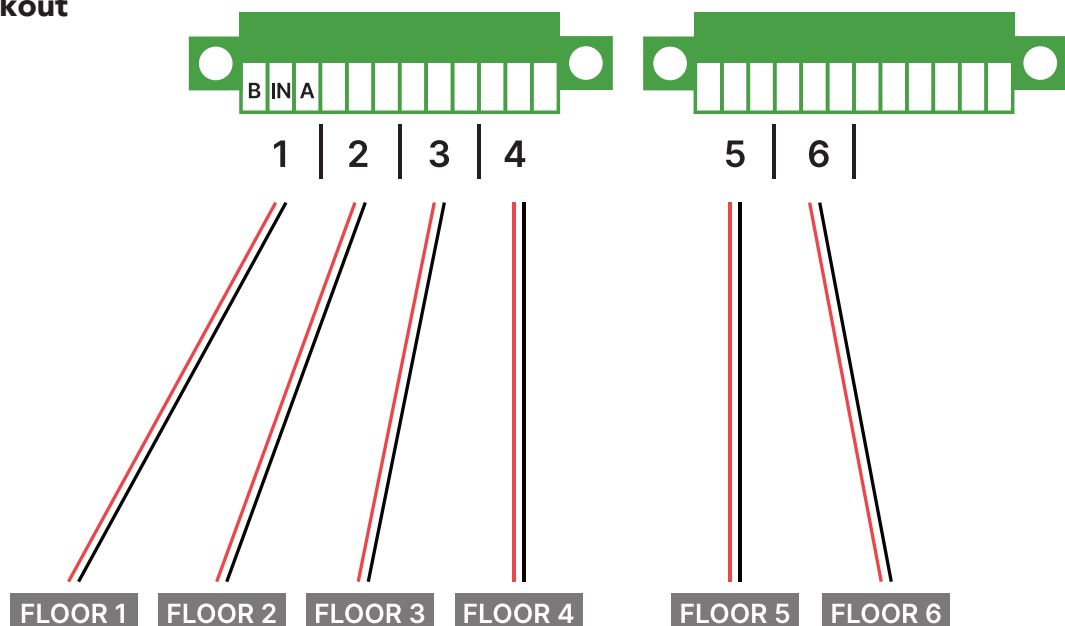
Solution: The lockout scheme determined by the elevator controller is accommodated by the ButterflyMX ECS. Each floor is locked out by default and there is a card reader in the elevator cab. Residents use their key fob to access the floor that they live on. When a visitor calls a resident from the ButterflyMX Touchscreen at the building access point, the resident grants them access and the floor that the resident lives on is unlocked in the elevator cab. There is a customizable timer that determines the length of time the floor is unlocked for.

Hardware Required:

1. ButterflyMX Smart Intercom
2. Elevator Control Hardware



Elevator Wiring Diagram Floor-by-Floor Lockout

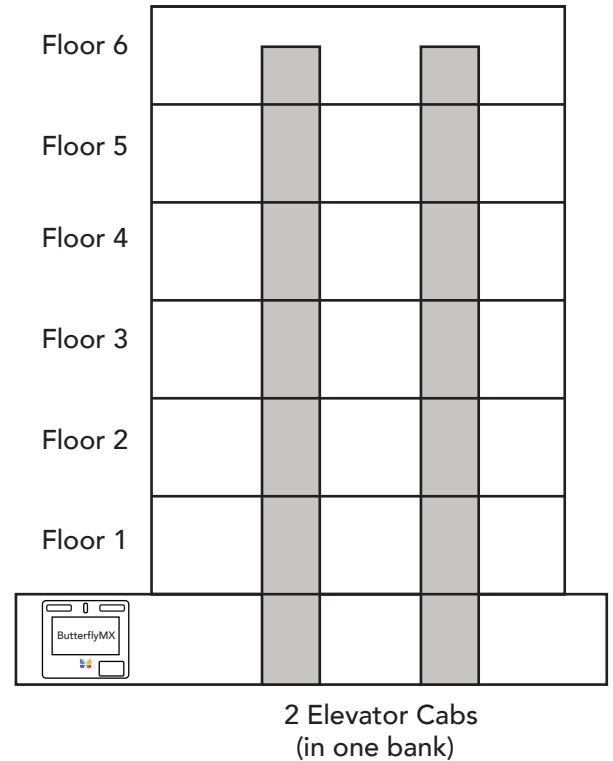


Scenario 2: “There are multiple elevator cabs in one bank in the building, with a floor-by-floor lockout. We want to allow visitors to access the appropriate floor in any of the elevators in that bank. How do we wire for this situation?”

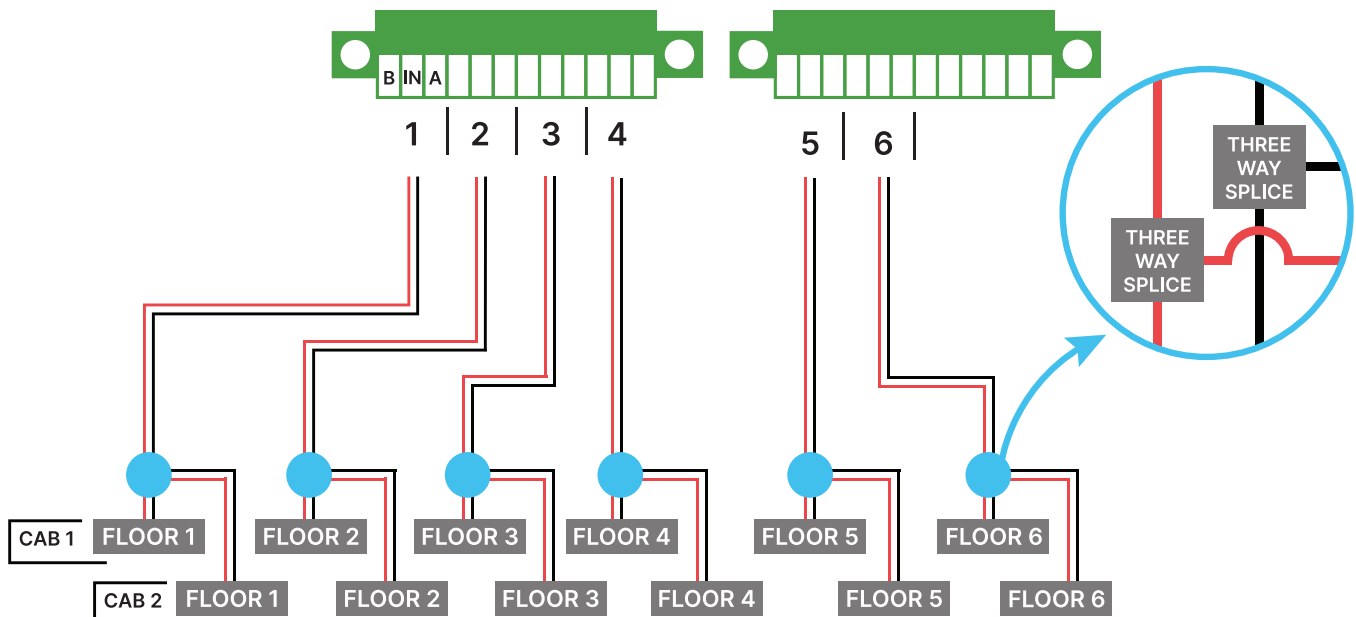
Solution: The installer should wire in parallel from the ButterflyMX ECS to the ACS. So, when a visitor is granted access by a resident at the front door ButterflyMX touchscreen, the resident’s floor is unlocked in each of the elevator cabs. There is a customizable timer that determines the length of time that the associated elevator floor is unlocked for, starting when the visitor is granted access through the ButterflyMX touchscreen at the building entry point.

Hardware Required:

1. ButterflyMX Smart Intercom
2. Elevator Control Hardware



Elevator Wiring Diagram Floor-by-Floor Lockout: Multiple Cabs



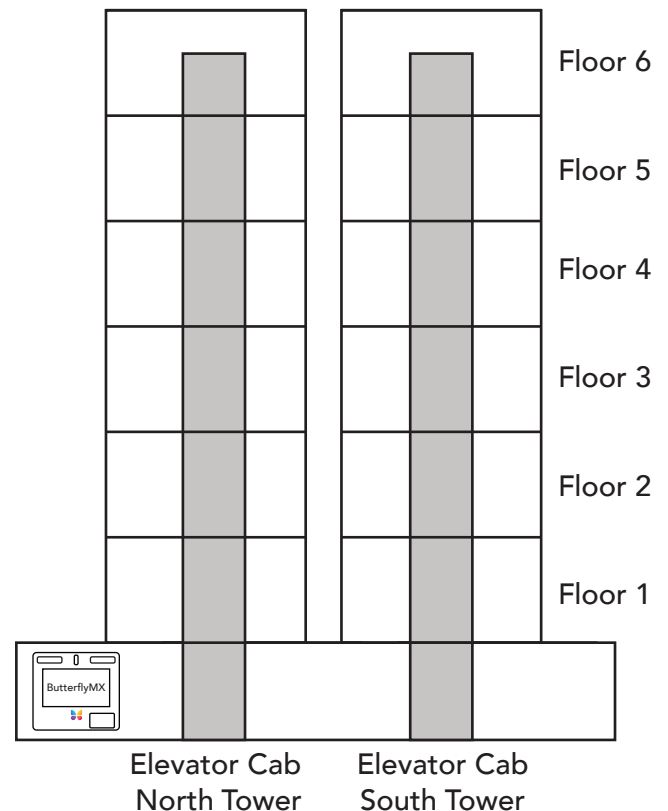
Scenario 3: "There is one entrance with a ButterflyMX intercom, and two separate residential towers, North and South. Each tower has its own elevator. We want visitors to be granted **ONLY** to the correct tower."

Solution: We will assign zones to the elevator modules. For example, Zone 1 is the North Tower, and Zone 2 is the South Tower. You will need at least 1x ECS small module per tower, unless the access control panel for both towers is centrally located.

Hardware Required:

1. ButterflyMX Smart Intercom,
2. Elevator Control Hardware

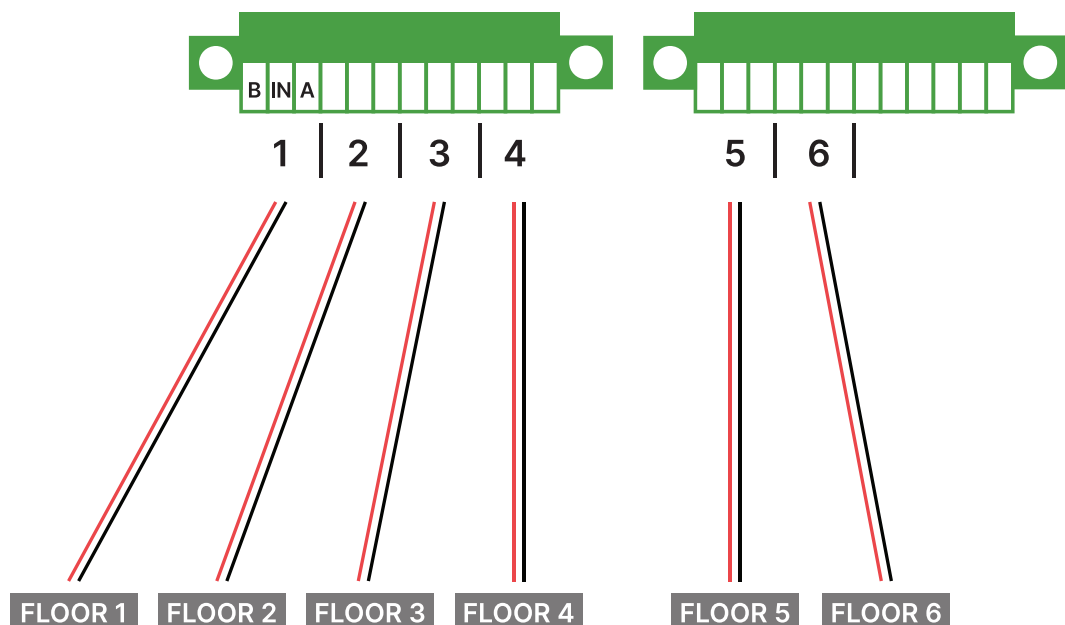
***please note: this needs to be done for both towers in this scenario**



Elevator Wiring Diagram Floor-by-Floor Lockout



! per tower



Scenario 4: "There are two entrances with ButterflyMX intercoms, and two separate residential towers, North and South. Each tower has a bank of 3 elevators with 6 floors. We want visitors to access only the correct tower, and they must enter from the corresponding entrance. So visitors to North Tower must enter at North Entrance, same for South. However, they should be able to use any of the three elevators in the correct tower."

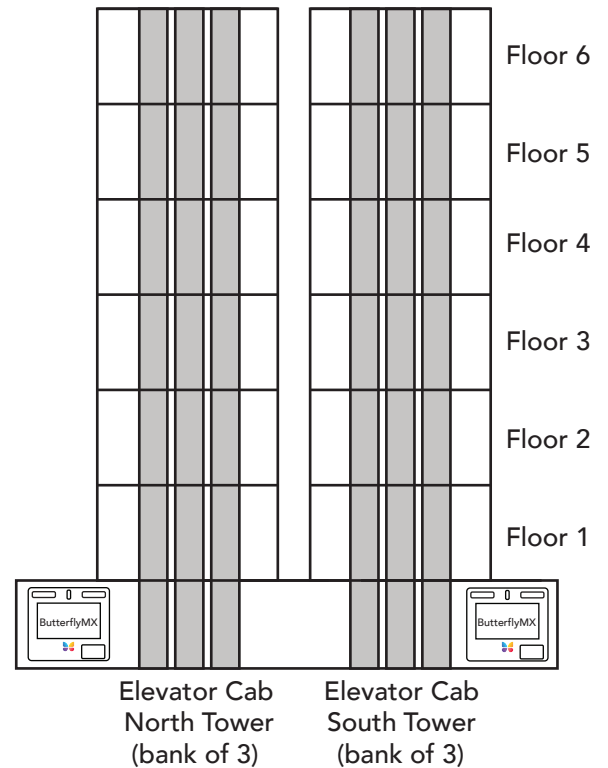
Solution: We will assign zones to the towers; Zone 1 is North and Zone 2 is South. Zone 1 residents will only appear on the directory for the intercom at the North entrance, Zone 2 residents will only appear on the directory for the intercom at the South entrance. Each tower will require one small ECS module. The module in each tower will be wired in parallel so that each of the three elevator cabs are unlocked on one request. Each tower has a floor-by-floor lockout.

Hardware Required:

1. 2 ButterflyMX Smart Intercoms
2. Elevator Control Hardware

***please note: this needs to be done for both towers in this scenario**

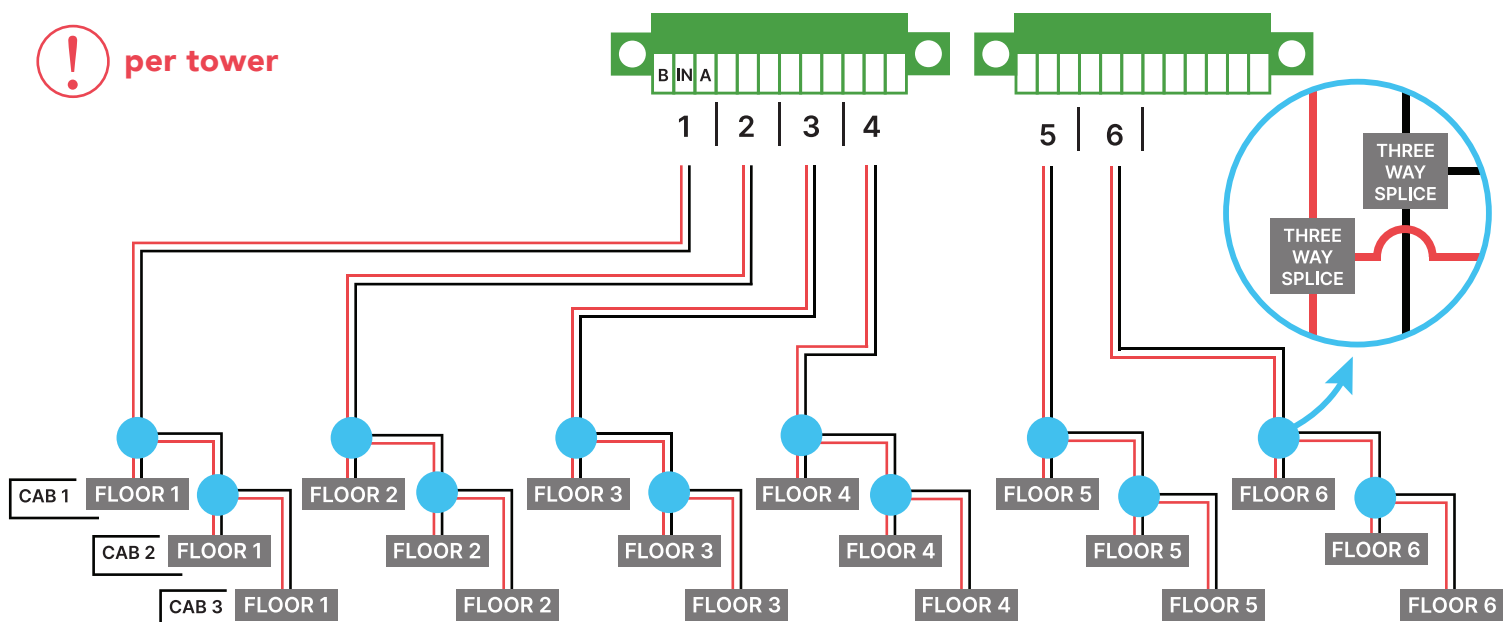
***each tower requires 1 ECS module**



Elevator Wiring Diagram Floor-by-Floor Lockout: Multiple Cabs



per tower



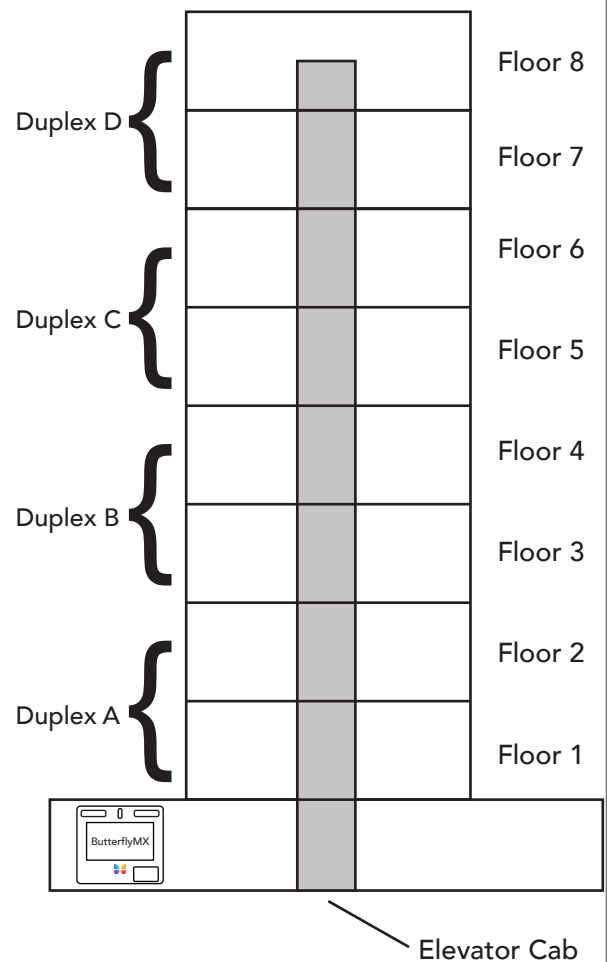
Scenario 5: "There is one entrance with a ButterflyMX intercom, and one elevator with 8 floors. There are 4 duplex units: Floors 1 and 2, floors 3 and 4, floors 5 and 6, floors 7 and 8. The elevator opens into the unit. A visitor to a duplex needs to be granted access to both floors from one request."

Solution: We assign a floor to the residents. In this case, we will assign one of the two floors of the duplex. So the first/second floor duplex is considered Floor 1. The ECS module will be wired in parallel from relay 1 on the ECS board to the inputs for Floor 1 and 2 on the ACS board. So a positive request to access Floor 1 will also unlock Floor 2 in the elevator cab.

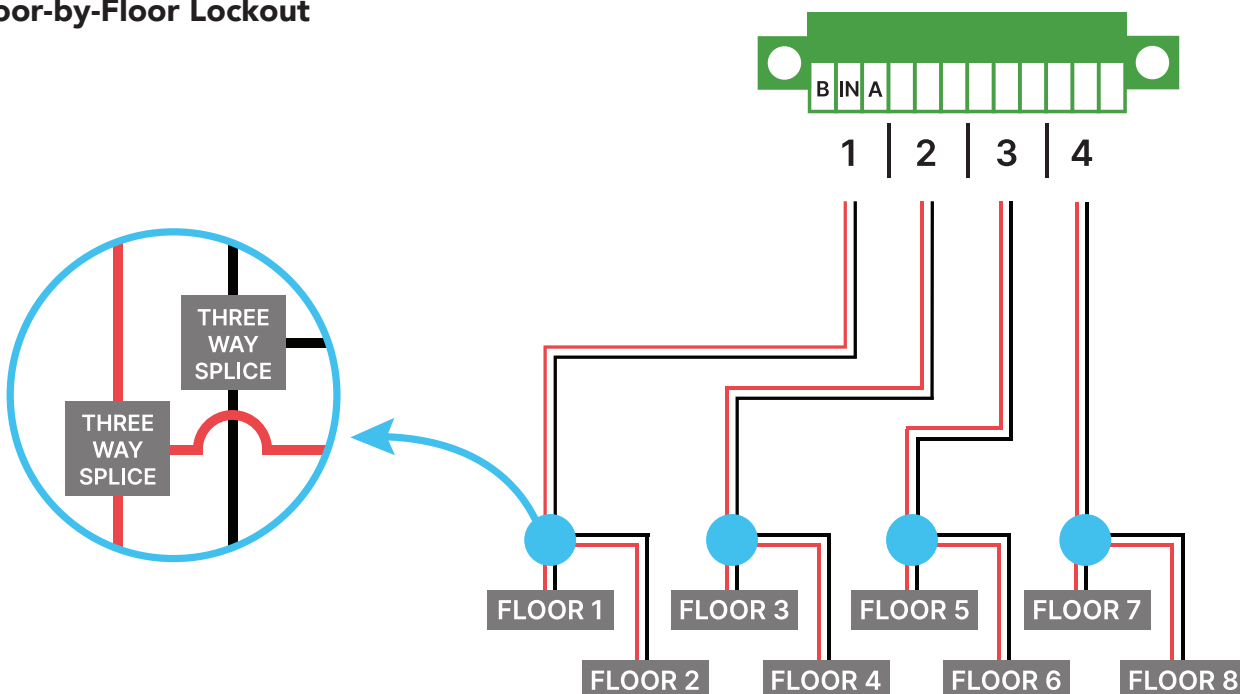
Hardware Required:

1. ButterflyMX Smart Intercom,
2. Elevator Control Hardware

***please note: this needs to be done for both towers in this scenario**



Elevator Wiring Diagram Floor-by-Floor Lockout

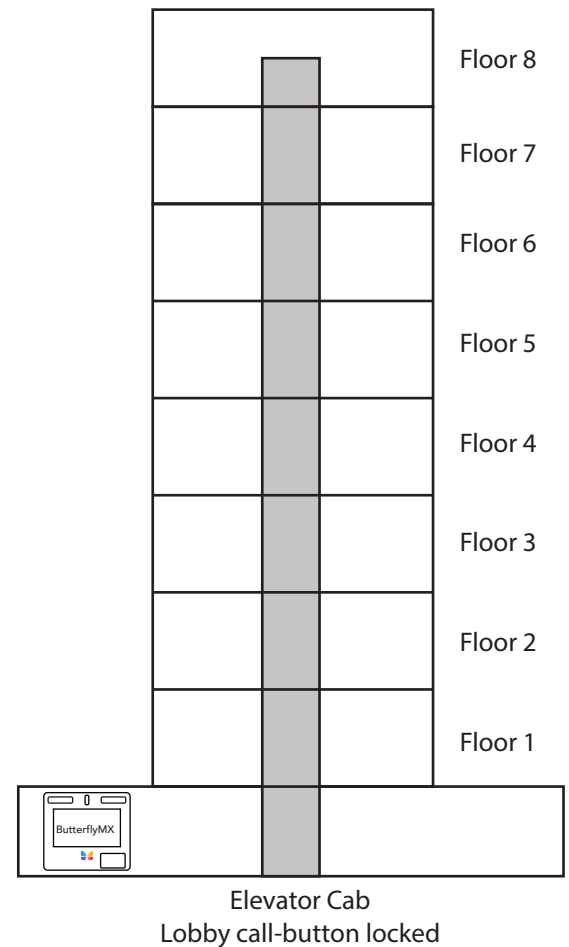


Scenario 6: "The elevator lobby is locked, but once visitors/tenants are in the elevator, there are no floor lockout restrictions. If the residents just need a key fob to unlock the elevator at the ground level, how do visitors get into the elevator?"

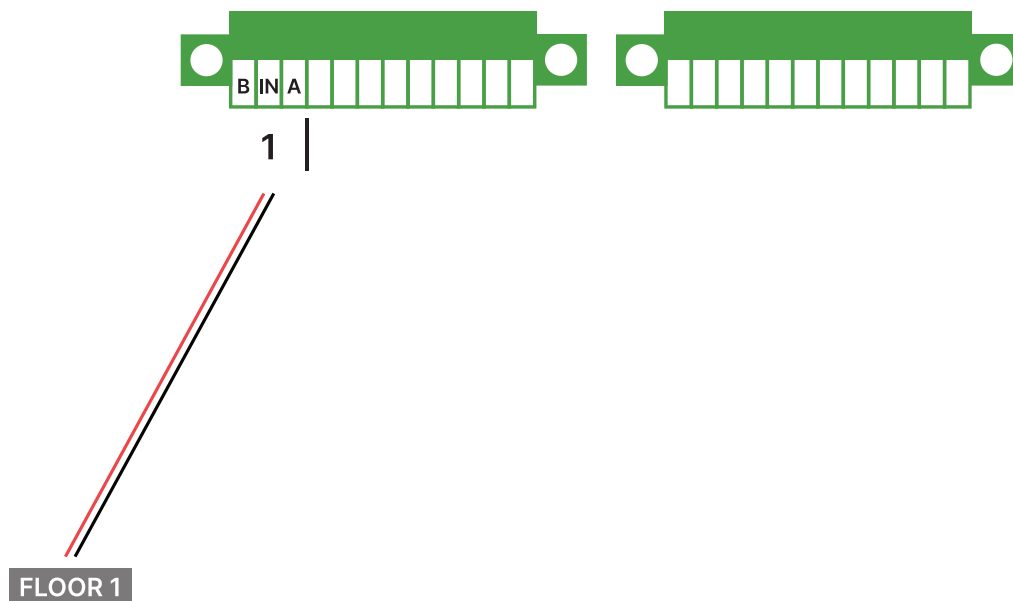
Solution: The ButterflyMX ECS will be wired to trigger the relay for unlocking the lobby floor button. So, if a visitor calls a resident and is granted access through the front door touchscreen, the ECS will fire the relay to unlock the elevator at the lobby. This will happen regardless of the floor that the resident lives on. In other words, one relay on the ButterflyMX ECS is wired to the relay for the elevator lobby. Every resident, regardless of the floor that they live on, is associated with the elevator lobby button relay in the elevator settings for the building.

Hardware Required:

1. ButterflyMX Smart Intercom,
2. Elevator Control Hardware



Elevator Wiring Diagram Floor-by-Floor Lockout: All floors unlocked



For any questions or concerns regarding how to set up
a building with ButterflyMX Elevator Control System

Email us at support@butterflymx.com