

Requirement	Verification Type	Method
1) The system shall detect when a person enters the monitored room.	Demonstration	Build video will show a person entering the room and being detected by the system.
2) The system shall detect when a person exits the monitored room.	Demonstration	Build video will show a person exiting the room and the count being updated.
3) The system shall maintain, update, and display a running count of the number of occupants in the room.	Test	System will be tested with multiple entries and exits, showing correct running count in the build video.
4) The system shall indicate occupancy levels using distinct visual cues corresponding to empty, low, medium, high, and full occupancy, as required by the customer.	Test	System will be tested with varied occupancies and the correct LED indicator response will be recorded in the build video.
5) The system shall restrict entry once the occupancy limit is reached. This limit shall be configurable by the system operator.	Inspection	Code submission will show configurable limit. Build video will demonstrate access denial when capacity is full.
6) The system shall verify user health status prior to allowing entry, using a contactless or user-initiated method.	Demonstration	Build video will show user verification of health prior to entry through the chosen method.
7) The system shall simulate door control by indicating whether entry is granted or denied.	Demonstration	Build video will show LED/door simulation behavior indicating grant or denial of entry.
8) The system shall allow unrestricted exit from the room at all times.	Demonstration	Build video will show that users are always able to exit without any restriction.
9) The system shall maintain an accurate count of current room occupants throughout operation.	Test	System will be tested with multiple entry/exit scenarios to validate real-time accuracy in build video.
10) The system shall provide confirmation to the user when entry is granted following a valid health verification.	Demonstration	Build video will show visual confirmation (e.g., door opening or LED) provided after successful health check.