Variables:
Status Code - integer; Sent by Master over bluetooth. e = unoccupied; o = occupied
Local Status Code - integer; latest value received over bluetooth. e = unoccupied; o = occupied

```
Start
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Master?

No (classroom display)

Yes (hallway transmitter)

Send initiation code (0)

Button pressed?

Yes → Change status code by 1 and xmit 5 times

No

Lock changed

Yes → Change status code by 1 and xmit 5 times

No

Wait for status code to come by BT

Is it initiation code? (0)

No → Is status code > local status code?

Yes → Was local status code (0)?

Yes

No → Reset local status code to 0

(Re)broadcast status code 5 times

No → Change to unoccupied screen

Update local status code to new number → (Re)broadcast status code 5 times

Yes → Is status code even?

Yes (Even; Unlocked) → Change to unoccupied screen

No (Odd; locked) → Change screen to occupied Screen