Captive card key controls can be used in hotel guestroom systems to comply with automatic shutoff requirements*. This application note will discuss using captive card key controls with a myRoom Prime system.

A card key control can be incorporated into a myRoom Prime system in two distinct ways. This paper will discuss the features of both of these options, along with wiring diagrams, sequence of operations, and guest benefits for each.

**Basic Operation**

This option involves wiring a compatible dry contact closure captive card key control into a signal for a QSMx-4W-x and common connections. This option offers customizable 1-300 minute timeout.

**Wiring Diagram:**

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* Captive card key controls can be used to comply with certain requirements of IECC, ASHRAE 90.1, and Title 24 Part 6. Please consult your respective code documentation for more information.
Basic Sequence of Operations:
Using this solution in the guestroom would provide the following sequence of events:

**Normal Operation:**
1. Guest enters the room
2. Guest places the card key into the reader - Lights in the room turn on to the Welcome Scene
3. Guest removes the card key from the reader before leaving
4. Lights turn off 1-300 minutes after the door closes

**Card Key Left in Room:**
1. Guest enters the room
2. Guest places the card key into the reader – Lights in the room turn on to the Welcome Scene
3. Guest leaves the room without removing the card key
4. Lights remain on

**No Card Key:**
1. Guest enters the room
2. Guest forgets to place the card key into the reader
3. Guest presses the keypad button - Lights in the room turn on
4. Guest leaves the room
5. Lights remain on

Note that the card key does not lock the room's devices. The keypads and lighting control system still react to button presses from the guest so that the guest can turn lights on in the event of a lost or misplaced card key.
**Advanced Option**

This option involves wiring a compatible dry contact closure captive card key control into a QSMx-4W-x’s signal and common connections, and also requires a magnetic door contact be installed and wired to the MQSE-xS1-D CCI input. The door contact gives the system the added ability to set back the guestroom even if the guest forgot to enter their card key when they entered.

This option offers a customizable 15-300 minute timeout, with the option for a sequential vacancy action for increased flexibility. For example, the lights turn off after the first 15 minutes, and if the room remains unoccupied for an additional 15 minutes, the temperature sets back.

**Wiring Diagram**
Advanced Sequence of Operations
Using this solution in the guestroom would provide the following sequence of events in the room for the guest:

Normal Operation:
1. Guest enters the room and places the card key into the reader - Lights in the room turn on to the welcome scene, thermostat enters comfort mode, and receptacles are energized\(^2\) (if applicable)
2. Guest removes the card key before leaving
3. Lights turn off 15-300 minutes after the door closes

Card Key Left in Room:
1. Guest enters the room and places the card key into the reader – Lights in room turn on to the welcome scene, thermostat enters comfort mode, and receptacles are energized
2. Guest leaves the room without removing the card key
3. Lights remain on

No Card Key:
1. Guest enters the room and does not place the card into the reader
2. Guest presses a keypad button - Lights in the room turn on, thermostat enters comfort mode, and receptacles are energized
3. Guest leaves the room
4. Lights turn off 15-300 minutes after the door closes

Conclusion
The myRoom Prime system is capable of integrating to a captive card key reader. This solution does provide code compliance in some regions, but can be intrusive to the guest’s experience and easily defeated with multiple guest keys.

For more information on guestroom occupancy detecting systems, contact your local Lutron representative to learn more about Guest Presence Detection.

\(^2\) Receptacles can be controlled through an external power pack connected to the contact closure output on the myRoom switching module. The output will follow the current state of the guestroom (closed = occupied, open = unoccupied). This can also be used for 3rd party thermostat control, or hardware-level integration into a dashboard software platform.