# EscapeKeeper



# A REVOLUTIONARY CONTROLLER FOR THE ESCAPE ROOM INDUSTRY

This year we've added more puzzle modes, and an expansion port so it can control lots of RGB LEDs, a Servo, or even more outputs. These devices can be used to show clues, puzzle progress, the position in an input sequence, the status of the inputs, how many tries are left, how much time is left, and more.

The EscapeKeeper has built-in puzzle modes that cover many of the puzzles used in Escape Rooms today. Simply choose your mode, connect up to eight inputs, tap record, then act out your puzzle's solution. That's it! When the players figure out how to repeat those same actions the EscapeKeeper will consider the puzzle solved.

A new puzzle mode allows the EscapeKeeper to randomly pick from a list of possible solutions or generate one on the fly. Clues are presented to the players via audio files or devices connected to the expansion connector. Users then have to interpret those clues and either repeat a sequence, activate the correct input, or set the inputs to a certain state. Difficulty can increase until the puzzle is solved.

The EscapeKeeper revolutionized Escape Room controllers when it was first introduced last year. The new expansion connector and additional puzzle modes take it to the next level. Continue reading to see what else the EscapeKeeper can do for you ...



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# Puzzle Modes

Escape Rooms are often unique from a story and theme perspective, but the actions to solve them are usually similar. We've pre-programmed the EscapeKeeper to monitor and control 90% of the puzzles we've been approached with over the past few years. Simply connect your inputs, select your puzzle mode, then act out the solution. When the players figure out how to repeat what you programmed the EscapeKeeper will unlock the door or play your optional output animation and sound. If you want to change the accepted solution, simply tap record and act it out again.

Below is a short description of each of the available puzzle modes ...

#### INPUT SEQUENCE



Use this mode when the players have to press buttons or activate sensors in a specific order to solve the puzzle. You can even program some of the steps to require two or more of the buttons are pressed at the same time. An optional timeout can be specified which can be used to

play a sound and require them to start over if they take too long.

#### Morse Code

This mode is similar to Input Sequence above, with the addition of a distinction between short and long presses. Use this mode with a single input to require a Morse Code to be entered, or use up to eight of the inputs to create a complex multi-input combination. The length of a short and long press are

different for everyone, so the EscapeKeeper dynamically adjusts the timing to be compatible with the current player.

#### INPUT STATE

Use this mode if players have to move multiple switches, dials, or objects into a certain position to win. The order in which they move them is not important. Short sounds can be played as each object's position is changed. Once everything is in the correct position the

EscapeKeeper will declare success and play an optional success sound.

#### NUMBER OF INPUTS

Use this mode if the players must find a specific number of objects or keys and place them in the correct location. The order in which they find them is not important. As they find each object a specific sound can be played for the object, followed by another sound telling them how many objects remain.



#### MISSION IMPOSSIBLE

Use this mode if your room would be at home in a Mission Impossible or Indiana Jones movie. The players have to get to the other side of the room tripping any of the booby traps. The traps could be laser sensors, or some other sensored obstacle or opening. If they

hit it a trap they are forced to return to the beginning where they either tap a reset button or walk past a hidden infrared sensor before they can try again. Only once they make it all the way to the end where they either trip the finish sensor, hit a finish button, or enter a code, will the door or secret compartment unlock.

#### SIMON SAYS



In this mode the EscapeKeeper will play a sequence or indicate a pattern the players have to either repeat or interpret in some way to determine the solution. This clue can be played from an audio file chosen at random from a list of files you provide, or it could be visual. Visual clues would be random sequences or states

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played out on LEDs, light bulbs, a servo, or any other electrical device. You can choose if they have to repeat the displayed sequence, set the puzzle inputs to a certain state, or just activate a particular input - like the last one shown for example. The puzzle can be set to repeat multiple times, with the complexity or speed increasing as they progress. Each time the puzzle is played both the solution and clues can change. This puzzle is only available on the 504 model. An output accessory is required to play back visual clues.

#### PATCH PANEL (CONNECT THE WIRES)

Use this mode to setup some sort of wire connecting puzzle. This is often staged as an old telephone operator patch panel, a network panel, an electrical panel, etc. Anything that uses wires will work. You can use up to seven wires. Players would have to figure out which jack or terminal each end of the wire must connect to. Using seven cables this puzzle yeilds an amazing 24,401,600 possible solutions! Setting your solution is as simple as connecting the wires in the correct pattern and tapping the record button. This mode requires our Patch Panel Sequencer accessory.

#### **OUTPUTS**



The EscapeKeeper has three 12 VDC solid-state outputs.

Output I can provide up to 3 amps and is dedicated to indicating the successful completion of the puzzle. It would generally be used to control a maglock, magnetic latch, solenoid, or to indicate success to a master controller. The other two outputs can be programmed to play different animation for each state of the puzzle. A list of the states you can program is shown below ...

Game Start - This animation will play once when the game is started Game On Loop - This animation will loop as the game is played Miss - This animation will play when an incorrect attempt is made Success - This animation plays when they solve the puzzle Fail - This animation plays when the optional game timer expires

#### **AUXILLARY OUTPUT**

The 504 model can now control strips or rings of RGB LEDs, an RC servo, or any other electrical device. These devices can be used to indicate clues, the state of the inputs, the progress of an input sequence, how much time is left, how many tries are left, or how close they are to the solution. Multiple parameters can be shown at the same time on different devices. An output accessory board is required. See the back page for more information.

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# MP3 Sound & Amplifier

The EscapeKeeper's optional MP3 player and 35 watt amplifier are tightly coupled to its puzzle controlling core. This integration results in a highly



flexible and intuitive audio system that triggers sounds based on active inputs, puzzle mode, and puzzle state. Simply insert a blank micro SD card and the EscapeKeeper will create sound folders for every puzzle state and input change. Just copy the sounds you want to play into the respective folder and you're done. Below are just a few of the folders you can use to play sounds:

**Game On** - This sound plays when the puzzle begins. Insert a sound here to explain the objective and play any safety messages.

**Input On, Input Off** - Each input can have its own sound for these states. You can use these to play short sound effects as buttons are pressed or sensors are activated.

**Time Left** - Play sounds indicating how much time is left at any of the relevant intervals.

**Success** - Congratulate the players with a themed message if they finally succeed

Failure - If the game timer expires use this sound to let them down gently, or not.

> **E-Stop** - The sound will loop if an Emergency Stop event has been detected.

#### HINTS & AMBIENT AUDIO OPTIONS Any unused inputs can be



connected to buttons and used

to play hints. You can also load Ambient audio tracks which will play in the background when other sounds aren't playing.

# PRE-GAME CHECK

Some props need to be manually moved or reset before the next group enters the room. Forgetting to return a hidden prop, close a secret door, or tilt the secret book can spoil the solution and lead to unhappy customers. The EscapeKeeper can help eliminate at least some of these embarrassing moments.

When the EscapeKeeper is reset for the next group, it knows the inputs should be in a certain state. For example, if the puzzle mode is Input State, the inputs shouldn't already be in the winning state. If the puzzle mode is Number of Inputs, commonly used with finding keys or objects, it knows the game shouldn't start with any of the objects in the solved position.

If the EscapeKeeper detects one of these errors as it's being reset for the next game, it will alert the operator by beeping and blinking the offending inputs. If you're not using all eight of the inputs for your puzzle, you can use the extra inputs to monitor door contacts or other sensors for the sole purpose of making sure objects are in the correct position when the room is reset.

## DEDICATED RESET INPUT

If you have multiple EscapeKeepers in a single room, simply connect all their reset inputs to a single reset button so you can easily reset and lock all the doors at once. As a bonus, if they detect any puzzle elements haven't been reset correctly you'll hear one of them beeping to let you know.



The EscapeKeeper has a built-in timer that can be used to automatically fail the game and unlock the door after a set period of time. As the timer counts down it can trigger optional sounds to notify the players of how much time is remaining.



The timer can also be used instead as a puzzle reset timer. In this mode it will reset the EscapeKeeper after a set time so the puzzle can be solved again. By default, the EscapeKeeper can only be solved once, after which someone must reset it using the reset input or by holding the reset button. This is done to prevent a door from locking unintentionally which could be a safety issue.

# LINKING CONTROLLERS

Multiple EscapeKeepers can easily be connected to each other to force players to solve multiple puzzles in a particular sequence. You can wire them so a single door is unlocked only once all puzzles are solved, or so that individual doors or compartments are unlocked as they progress through the game. Once one puzzle is solved the next one is automatically enabled, playing any instructional messages they need to hear before the next challenge.



You can also link multiple EscapeKeepers to a master controller like our FlexMax. The FlexMax can be used to play specific Ambient music and control the room lighting based on the current state of the game.



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# SAFETY FEATURES

As Escape Rooms become more popular, many of our customers have had issues with fire and safety compliance. This is usually related to the players needing a clear and simple way to unlock the door and exit the room should a fire or health emergency occur. We've built some safety-specific features into the EscapeKeeper to help keep your inspectors happy.

## E-STOP DETECTION



All locked doors should have a clearly marked and accessible E-Stop button. Some inspectors will also require a separate reset button located in a staff area which needs to be pressed before the door can be locked again. The first requirement is simple, the latter is slightly more difficult.

The EscapeKeeper has you covered on both requirements. Simply add an E-Stop button near your door, wiring it in series with the maglock so it loses power and opens the door when the button is pressed. We've included circuitry to detect when the E-Stop button has been used. This will immediately stop all other aspects of the game and sound the EscapeKeeper's internal alarm. The door can only be locked again if the EscapeKeeper is manually reset via the external input or on-board button.

## EMERGENCY MESSAGES

You have the option of recording a custom emergency message that will be looped when an e-stop event is detected. You can use this to inform the players how to quickly exit the area and get to safety.

## MANDATORY MANUAL RESET

Most other puzzle controllers are setup so connected maglocks go into a locked state at power-up. This is convenient as it allows the room to be reset by cycling the power, but it's not going to please any inspectors. A short brown-out or power failure could cause all the doors to unintentionally go from an already unlocked state back to a locked state. By default, the EscapeKeeper prevents this behavior by requiring the reset button or reset input be used before it will lock the door.



# **NEW ESCAPEKEEPER ACCESSORIES**



# **POWER INJECTOR**

You'll need this board to control a servo or LED strips and rings from the AUX output on the new 504 model. The LEDs must be of the WS2812B or SK6812 variety, commonly called NeoPixels by Adafruit. This board will inject the 5-6 volts required to power these devices. You can connect two strips of RGB LEDs or a single servo, but not both at the same time. See the Outputs section inside to learn what game states can be shown. A separate power supply is required and sold separately. A 5V 2A is adequate for a single servo or up to 30 LEDs (part number FI-712-3).

# PATCH PANEL SEQUENCER

This board is required for the Patch Panel / Connect the Wires puzzle mode. It will drive the jacks on one side of the patch panel. The jacks on the other side will be connected to the EscapeKeeper's inputs. If you utilize all seven cables you will have over 24 million possible puzzle solutions! This will work with the EscapeKeeper or EscapeKeeper JR. No additional power supply is required.

# **OUTPUT EXPANDER**

If you prefer not to use RGB LEDs, this board will allow you to use any DC device to present the same information. Each board has 12 outputs. Multiple boards can be daisy chained to add more outputs if necessary. See the Outputs section inside to learn what game states can be shown. The 504 model is required. The 5-amp power supply upgrade will likely be required for your EscapeKeeper so you have enough power for this board.

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