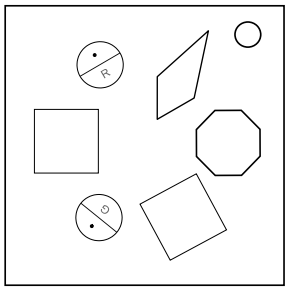
# On the Subject of Simon's Ultimate Showdown



*Looks like this is the real blinkenhell.*

This module has six buttons which may be paired with other extremities, all of which are randomly selected from any "simon" module in this game. Each button is colored with a random color from their respective module. The buttons (or extremities) will also be flashing a sequence of initially three flashes.

In order to solve this module follow the steps below and on the following pages to find out which color(s) need to be pressed for each flash in the sequence. The correct press(es) corresponding to the first flash must be pressed first and then the ones for the second flash and so on. Once all correct presses have been made the module will again randomize the colors on each button with a random color from their respective module. It will also add one more flash to the sequence but the positions of the previous flashes in the sequence will stay the same. After all correct button(s) have been pressed for a sequence of five flashes, the module will disarm.

If at any point an incorrect press is made a strike will be recorded and the module WILL reset that stage.

## Step 1: Identifying the modules the buttons/extremities are from

- A button from Simon Scrambles (https://ktane.timwi.de/HTML/Simon%20Scrambles.html) will be a square and colored blue, green, red, or yellow
- A button from Simon Screams (https://ktane.timwi.de/HTML/Simon%20Screams.html) will be a kite and colored blue, green, red, yellow, orange, or purple
- A button from Simon Simons (https://ktane.timwi.de/HTML/Simon%20Simons.html) will be a small diamond with a black backing and colored blue, green, red, or yellow
- A button from Simon Stops (https://ktane.timwi.de/HTML/Simon%20Stops.html) will be an octagon with a black backing and colored blue, green, red, yellow, orange, or purple
- A button from Simon's Stages (https://ktane.timwi.de/HTML/Simon's%20Stages.html)/Simon Stages (https://ktane.timwi.de/HTML/Simon%20Stages.html) will be a half circle with a letter on it paired with a light extremity where the letter is the first letter of the color the light extremity flashes
    - The light extremity is also a half circle that can flash red, blue, yellow, orange, magenta, green, pink, lime, cyan, or white
- A button from Tasha Squeals (https://ktane.timwi.de/HTML/Tasha%20Squeals.html) will be a diamond with a black backing and colored blue, green, pink, or yellow

- A button from Simon Sends (https://ktane.timwi.de/HTML/Simon%20Sends.html) will be a square with rounded edges and colored red, blue, green, yellow, magenta, cyan, white, or black
    - If at least one of these buttons is present then a capsule shaped light extremity will be in the top left of the module

NOTE: All sounds made by the buttons (only go off after first press) are the same ones from their respective modules.

**Step 2: Getting the correct color(s) to press for each flash**

If the flashing button or extremity is from...

- Simon's Stages (https://ktane.timwi.de/HTML/Simon's%20Stages.html)/Simon Stages (https://ktane.timwi.de/HTML/Simon%20Stages.html)
    1. Take the color of the flash and find the corresponding rule in the table in either modules' manuals
    2. Use the rule on the entire flashing sequence to find out which colors need to be pressed for this flash

    NOTE: Colors opposite the sequence when referenced for this module refer to the colors of the buttons directly opposite the ones that flashed

- Simon Scrambles (https://ktane.timwi.de/HTML/Simon%20Scrambles.html)
    1. Use the color of the flash and when it flashed in the sequence (1-5) as the time in the table in this module's manual to find out the first color that needs to be pressed for this flash
    2. Use the color of the flash and when it flashed in the sequence (1-5) + 5 as the time in the table in this module's manual to find out the second color that needs to be pressed for this flash

- Simon Screams (https://ktane.timwi.de/HTML/Simon%20Screams.html)
    1. Use the color of the flash in the big table in this module's manual and find the first true row from top to bottom
    2. The intersecting cell between the color of the flash (column) and first true row (row) will have 3 letters
    3. Reference the first letter if the flash is first or fourth in the sequence, second if the flash is second or fifth in the sequence, or the third if the flash is third in the sequence
    4. Use the referenced letter in the smaller table as the column, and get the true colors based on the edgework rules from top to bottom
    5. These true colors are the colors that need to be pressed for this flash

- Simon Stops (https://ktane.timwi.de/HTML/Simon%20Stops.html)

  1. Use the color of the flash as the original color and stage as the total number of flashes - 2 in Table A in this module's manual to get the correct color to press for this flash
  2. Use Table B to find the Control Input

     - When pressing colors in Step 4, because a Simon Stops button flashed at some point a pressed button will stay lit after being pressed and the module will essentially halt
     - In order to get the module going again to allow the rest of the presses, a Control Input (single color) must be pressed on the module
     - This is gotten through a two character code rule received from Table B, and this rule should only be applied once the module halts

  NOTES: The color violet is treated as purple. For the two character code rules 1N, 2N, 1P, and 2P, count by buttons themselves and not by types of colors on the buttons. For the two character code rules NP, PP, NS, and PS, if the type of color is not present (primary/secondary), use SC for the Control Input.

- Tasha Squeals (https://ktane.timwi.de/HTML/Tasha%20Squeals.html)

  1. Use this module's manual to find the first table where only one of the rules applies, but not both (XOR)
  2. Find the column to use in the correct table using the position of the flashing button (if the position is not present pink is the color that needs to be pressed for this flash)
  3. Find the color of the button that flashed in this column (if the color is not present pink is the color that needs to be pressed for this flash)
  4. The color in the leftmost column on the same row as the color of the button that flashed is the color that needs to be pressed for this flash

  NOTES: The top left and top right buttons count as the position "Top" in this module's manual. The bottom left and bottom right buttons count as the position "Bottom" in this module's manual. The word input should be treated as the word flash when checking the rules. The rules checking for a pink button on "the diamond" are just checking for whether a pink button is in those positions on the module.

- Simon Simons (https://ktane.timwi.de/HTML/Simon%20Simons.html)

  1. Use the position and color of the flash as the column in this module's manual and the current number of strikes on the bomb as the row
  2. The intersecting cell of the row and column will refer to a diamond in the diagram in "Appendix S2" where the color of diamond is the correct color to press for this flash

     NOTES: The position is the first character of the two characters in the columns, while the color is the second. The top left and top right buttons count as the position "T" in this module's manual. The bottom left and bottom right buttons count as the position "B" in this module's manual.

- Simon Sends (https://ktane.timwi.de/HTML/Simon%20Sends.html)

  1. Write down the sequence being flashed by the light extremity for a long as you like, it is recommended to write around 25 colors
  2. Split each color in this sequence into red, green, and blue components based on how they would be made using additive color mixing (marking them used or unused)
  3. When lining all red, green, and blue components up with each other a morse letter can be observed within the sequence using the following:

     - 3 used components in a row = long (-)
     - 1 used component = short (.)
     - 3 unused components = break between entire morse letter
     - 1 unused component = break between individual long or short

  4. Convert each letter to their alphabetical position (A=1...Z=26) and call these numbers R, G, and B respectively
  5. Follow the instructions of paragraphs 6-8 of the module's manual to get 3 new letters
  6. Now do the process in reverse by writing out the new letters in the same format the original letters were found, starting with the first long or short in the morse for each sequence
  7. Fill any missing spaces by marking those components unused up to the position of the last used component
  8. Convert the red, green, and blue components back into a color for each position in the sequence, and the resulting colors are the correct colors to press for this flash

NOTES: A button from this module does not normally flash. If one of these button is "flashing" then its highlight will light up instead. A diagram for additive color mixing and morse code are provided on the 2nd page of this module's manual.

## Step 3: Applying modifications

Before the correct colors can be pressed, they must be modified by any true rules in the following table.

| If... | Then... |
|---|---|
| The bomb has an SND or CAR indicator and the second flash is green | Remove all colors except for the first one that need to be pressed for each flash |
| One of the colors that needs to be pressed for the third flash is red | Replace all occurances of reds with blues |
| The sum of the number of "simon" modules (all listed in Step 1) on the bomb is greater than or equal to two | Replace all occurances of oranges with whites and greens with limes |
| One of the colors that needs to be pressed for the second flash is purple | Replace all occurances of yellows with oranges and add the color green to the end of the color presses for the last flash |
| The second or third flash is yellow or blue and the serial number contains the digit 5, 9, or 0 | Add the colors cyan and purple to the end of the color presses for the first flash in that order |
| The first flash is red, lime, or orange | Replace all occurances of blues with cyans |
| There are four flashes and half of the flashes are primary colors (RYB) | Remove all occurances of oranges, yellows, and whites |

## Step 4: Inputting the colors into the buttons

For any colors that are present on any of the buttons, input them into any those buttons. However, if a color is not present on any of the buttons, follow the correct priority list below until the first present color appears and press that button instead.

EXCEPTIONS: In the case of all buttons being the same color, press all buttons from Simon Stores (https://ktane.timwi.de/HTML/Simon%20Stores.html) and then the remaining unpressed in any order (If a Simon Stops (https://ktane.timwi.de/HTML/Simon%20Stops.html) button flashed the module will never halt if this case is true). In the case of having nothing to press, press the first appropriate button from the first true priority list.

Use this priority list if the module has buttons from Simon Scrambles (https://ktane.timwi.de/HTML/Simon%20Scrambles.html) and Tasha Squeals (https://ktane.timwi.de/HTML/Tasha%20Squeals.html): Lime, White, Orange, Black, Cyan, Green, Pink, Purple, Yellow, Magenta, Red, Blue

Otherwise use this priority list if the bomb has a Simon Sends (https://ktane.timwi.de/HTML/Simon%20Sends.html) or Simon's On First (https://ktane.timwi.de/HTML/Simon's%20On%20First.html): Orange, Pink, White, Yellow, Blue, Red, Cyan, Black, Purple, Green, Lime, Magenta

Otherwise use this priority list: Magenta, Purple, Pink, Green, Lime, White, Red, Blue, Cyan, Yellow, Black, Orange