



# BOMB DEFUSAL MANUAL

Version 1

Verification Code: 241

*Welcome to the dangerous and challenging world of bomb defusing.*

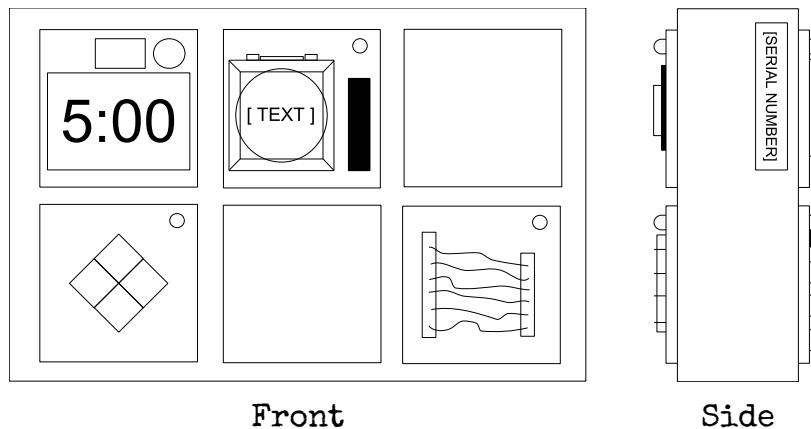
*Study this manual carefully; you are the expert. In these pages you will find everything you need to know to defuse even the most insidious of bombs.*

*And remember — One small oversight and it could all be over!*

# Defusing Bombs

A bomb will explode when its countdown timer reaches 0:00 or when too many strikes have been recorded. The only way to defuse a bomb is to disarm all of its modules before its countdown timer expires.

Example Bomb



## Modules

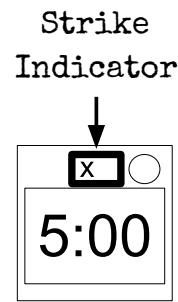
Each bomb will include up to 11 modules that must be disarmed. Each module is discrete and can be disarmed in any order.

Instructions for disarming modules can be found in Section 1. "Needy" modules present a special case and are described in Section 2.

## Strikes

When the Defuser makes a mistake the bomb will record a strike which will be displayed on the indicator above the countdown timer. Bombs with a strike indicator will explode upon the third strike. The timer will begin to count down faster after a strike has been recorded.

If no strike indicator is present above the countdown timer, the bomb will explode upon the first strike, leaving no room for error.



## Gathering Information

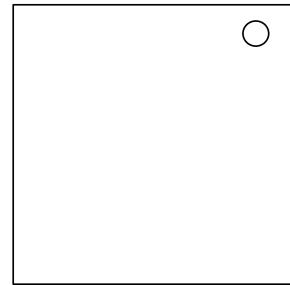
Some disarming instructions will require specific information about the bomb, such as the serial number. This type of information can typically be found on the top, bottom, or sides of the bomb casing. See Appendix A, B, and C for identification instructions that will be useful in disarming certain modules.

## Section 1: Modules

Modules can be identified by an LED in the top right corner.

When this LED is lit green the module has been disarmed.

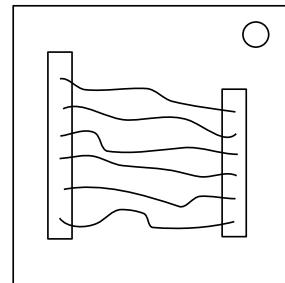
All modules must be disarmed to defuse the bomb.



## On the Subject of Wires

*Wires are the lifeblood of electronics! Wait, no, electricity is the lifeblood.  
Wires are more like the arteries. The veins? No matter...*

- A wire module can have 3–6 wires on it.
- Only the one correct wire needs to be cut to disarm the module.
- Wire ordering begins with the first on the top.



### 3 wires:

If there are no red wires, cut the second wire.

Otherwise, if the last wire is white, cut the last wire.

Otherwise, if there is more than one blue wire, cut the last blue wire.

Otherwise, cut the last wire.

### 4 wires:

If there is more than one red wire and the last digit of the serial number is odd, cut the last red wire.

Otherwise, if the last wire is yellow and there are no red wires, cut the first wire.

Otherwise, if there is exactly one blue wire, cut the first wire.

Otherwise, if there is more than one yellow wire, cut the last wire.

Otherwise, cut the second wire.

### 5 wires:

If the last wire is black and the last digit of the serial number is odd, cut the fourth wire.

Otherwise, if there is exactly one red wire and there is more than one yellow wire, cut the first wire.

Otherwise, if there are no black wires, cut the second wire.

Otherwise, cut the first wire.

### 6 wires:

If there are no yellow wires and the last digit of the serial number is odd, cut the third wire.

Otherwise, if there is exactly one yellow wire and there is more than one white wire, cut the fourth wire.

Otherwise, if there are no red wires, cut the last wire.

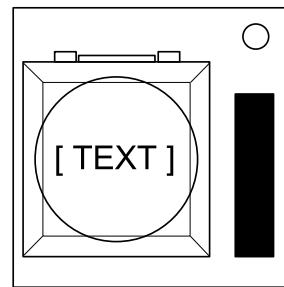
Otherwise, cut the fourth wire.

## On the Subject of The Button

You might think that a button telling you to press it is pretty straightforward. That's the kind of thinking that gets people exploded.

See Appendix A for indicator identification reference.

See Appendix B for battery identification reference.



Follow these rules in the order they are listed. Perform the first action that applies:

1. If the button is blue and the button says "Abort", hold the button and refer to "Releasing a Held Button".
2. If there is more than 1 battery on the bomb and the button says "Detonate", press and immediately release the button.
3. If the button is white and there is a lit indicator with label CAR, hold the button and refer to "Releasing a Held Button".
4. If there are more than 2 batteries on the bomb and there is a lit indicator with label FRK, press and immediately release the button.
5. If the button is yellow, hold the button and refer to "Releasing a Held Button".
6. If the button is red and the button says "Hold", press and immediately release the button.
7. If none of the above apply, hold the button and refer to "Releasing a Held Button".

### Releasing a Held Button

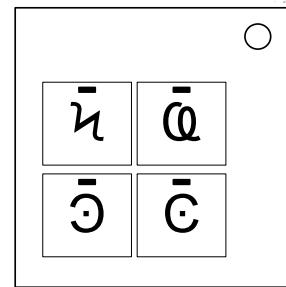
If you start holding the button down, a colored strip will light up on the right side of the module. Based on its color you must release the button at a specific point in time:

- Blue strip: release when the countdown timer has a 4 in any position.
- White strip: release when the countdown timer has a 1 in any position.
- Yellow strip: release when the countdown timer has a 5 in any position.
- Any other color strip: release when the countdown timer has a 1 in any position.

## On the Subject of Keypads

I'm not sure what these symbols are, but I suspect they have something to do with occult.

- Only one column below has all four of the symbols from the keypad.
- Press the four buttons in the order their symbols appear from top to bottom within that column.



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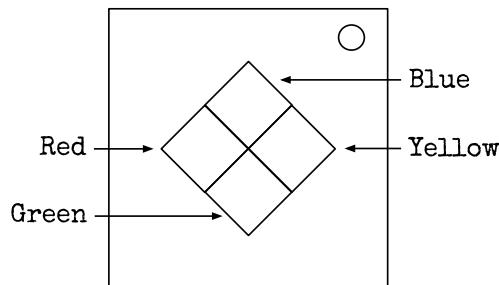
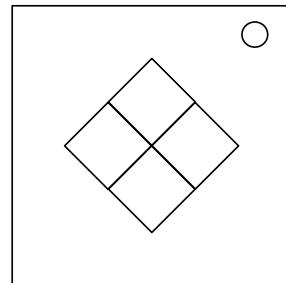
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## On the Subject of Simon Says

This is like one of those toys you played with as a kid where you have to match the pattern that appears, except this one is a knockoff that was probably purchased at a dollar store.

1. One of the four colored buttons will flash.
2. Using the correct table below, press the button with the corresponding color.
3. The original button will flash, followed by another. Repeat this sequence in order using the color mapping.
4. The sequence will lengthen by one each time you correctly enter a sequence until the module is disarmed.



If the serial number contains a vowel:

		Red Flash	Blue Flash	Green Flash	Yellow Flash
Button to press:	No Strikes	Blue	Red	Yellow	Green
	1 Strike	Yellow	Green	Blue	Red
	2 Strikes	Green	Red	Yellow	Blue

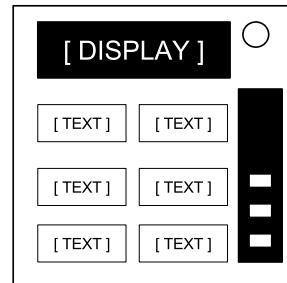
If the serial number does not contain a vowel:

		Red Flash	Blue Flash	Green Flash	Yellow Flash
Button to press:	No Strikes	Blue	Yellow	Green	Red
	1 Strike	Red	Blue	Yellow	Green
	2 Strikes	Yellow	Green	Blue	Red

## On the Subject of Who's on First

This contraption is like something out of a sketch comedy routine, which might be funny if it wasn't connected to a bomb. I'll keep this brief, as words only complicate matters.

1. Read the display and use step 1 to determine which button label to read.
2. Using this button label, use step 2 determine which button to push.
3. Repeat until the module has been disarmed.



### Step 1:

Based on the display, read the label of a particular button and proceed to step 2:

<b>YES</b>	<b>FIRST</b>	<b>DISPLAY</b>	<b>OKAY</b>	<b>SAYS</b>	<b>NOTHING</b>
<b>BLANK</b>	<b>NO</b>	<b>LED</b>	<b>LEAD</b>	<b>READ</b>	
<b>RED</b>	<b>REED</b>	<b>LEED</b>	<b>HOLD ON</b>	<b>YOU</b>	<b>YOU ARE</b>
<b>YOUR</b>	<b>YOU'RE</b>	<b>UR</b>	<b>THERE</b>	<b>THEY'RE</b>	<b>THEIR</b>
<b>THEY ARE</b>	<b>SEE</b>	<b>C</b>	<b>CEE</b>		

**Step 2:**

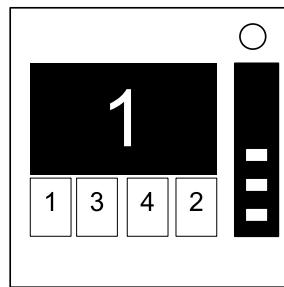
Using the label from step 1, push the first button that appears in its corresponding list:

<b>"READY":</b>	YES, OKAY, WHAT, MIDDLE, LEFT, PRESS, RIGHT, BLANK, READY, NO, FIRST, UHHH, NOTHING, WAIT
<b>"FIRST":</b>	LEFT, OKAY, YES, MIDDLE, NO, RIGHT, NOTHING, UHHH, WAIT, READY, BLANK, WHAT, PRESS, FIRST
<b>"NO":</b>	BLANK, UHHH, WAIT, FIRST, WHAT, READY, RIGHT, YES, NOTHING, LEFT, PRESS, OKAY, NO, MIDDLE
<b>"BLANK":</b>	WAIT, RIGHT, OKAY, MIDDLE, BLANK, PRESS, READY, NOTHING, NO, WHAT, LEFT, UHHH, YES, FIRST
<b>"NOTHING":</b>	UHHH, RIGHT, OKAY, MIDDLE, YES, BLANK, NO, PRESS, LEFT, WHAT, WAIT, FIRST, NOTHING, READY
<b>"YES":</b>	OKAY, RIGHT, UHHH, MIDDLE, FIRST, WHAT, PRESS, READY, NOTHING, YES, LEFT, BLANK, NO, WAIT
<b>"WHAT":</b>	UHHH, WHAT, LEFT, NOTHING, READY, BLANK, MIDDLE, NO, OKAY, FIRST, WAIT, YES, PRESS, RIGHT
<b>"UHHH":</b>	READY, NOTHING, LEFT, WHAT, OKAY, YES, RIGHT, NO, PRESS, BLANK, UHHH, MIDDLE, WAIT, FIRST
<b>"LEFT":</b>	RIGHT, LEFT, FIRST, NO, MIDDLE, YES, BLANK, WHAT, UHHH, WAIT, PRESS, READY, OKAY, NOTHING
<b>"RIGHT":</b>	YES, NOTHING, READY, PRESS, NO, WAIT, WHAT, RIGHT, MIDDLE, LEFT, UHHH, BLANK, OKAY, FIRST
<b>"MIDDLE":</b>	BLANK, READY, OKAY, WHAT, NOTHING, PRESS, NO, WAIT, LEFT, MIDDLE, RIGHT, FIRST, UHHH, YES
<b>"OKAY":</b>	MIDDLE, NO, FIRST, YES, UHHH, NOTHING, WAIT, OKAY, LEFT, READY, BLANK, PRESS, WHAT, RIGHT
<b>"WAIT":</b>	UHHH, NO, BLANK, OKAY, YES, LEFT, FIRST, PRESS, WHAT, WAIT, NOTHING, READY, RIGHT, MIDDLE
<b>"PRESS":</b>	RIGHT, MIDDLE, YES, READY, PRESS, OKAY, NOTHING, UHHH, BLANK, LEFT, FIRST, WHAT, NO, WAIT
<b>"YOU":</b>	SURE, YOU ARE, YOUR, YOU'RE, NEXT, UH HUH, UR, HOLD, WHAT?, YOU, UH UH, LIKE, DONE, U
<b>"YOU ARE":</b>	YOUR, NEXT, LIKE, UH HUH, WHAT?, DONE, UH UH, HOLD, YOU, U, YOU'RE, SURE, UR, YOU ARE
<b>"YOUR":</b>	UH UH, YOU ARE, UH HUH, YOUR, NEXT, UR, SURE, U, YOU'RE, YOU, WHAT?, HOLD, LIKE, DONE
<b>"YOU'RE":</b>	YOU, YOU'RE, UR, NEXT, UH UH, YOU ARE, U, YOUR, WHAT?, UH HUH, SURE, DONE, LIKE, HOLD
<b>"UR":</b>	DONE, U, UR, UH HUH, WHAT?, SURE, YOUR, HOLD, YOU'RE, LIKE, NEXT, UH UH, YOU ARE, YOU
<b>"U":</b>	UH HUH, SURE, NEXT, WHAT?, YOU'RE, UR, UH UH, DONE, U, YOU, LIKE, HOLD, YOU ARE, YOUR
<b>"UH HUH":</b>	UH HUH, YOUR, YOU ARE, YOU, DONE, HOLD, UH UH, NEXT, SURE, LIKE, YOU'RE, UR, U, WHAT?
<b>"UH UH":</b>	UR, U, YOU ARE, YOU'RE, NEXT, UH UH, DONE, YOU, UH HUH, LIKE, YOUR, SURE, HOLD, WHAT?
<b>"WHAT?":</b>	YOU, HOLD, YOU'RE, YOUR, U, DONE, UH UH, LIKE, YOU ARE, UH HUH, UR, NEXT, WHAT?, SURE
<b>"DONE":</b>	SURE, UH HUH, NEXT, WHAT?, YOUR, UR, YOU'RE, HOLD, LIKE, YOU, U, YOU ARE, UH UH, DONE
<b>"NEXT":</b>	WHAT?, UH HUH, UH UH, YOUR, HOLD, SURE, NEXT, LIKE, DONE, YOU ARE, UR, YOU'RE, U, YOU
<b>"HOLD":</b>	YOU ARE, U, DONE, UH UH, YOU, UR, SURE, WHAT?, YOU'RE, NEXT, HOLD, UH HUH, YOUR, LIKE
<b>"SURE":</b>	YOU ARE, DONE, LIKE, YOU'RE, YOU, HOLD, UH HUH, UR, SURE, U, WHAT?, NEXT, YOUR, UH UH
<b>"LIKE":</b>	YOU'RE, NEXT, U, UR, HOLD, DONE, UH UH, WHAT?, UH HUH, YOU, LIKE, SURE, YOU ARE, YOUR

## On the Subject of Memory

*Memory is a fragile thing but so is everything else when a bomb goes off, so pay attention!*

- Press the correct button to progress the module to the next stage. Complete all stages to disarm the module.
- Pressing an incorrect button will reset the module back to stage 1.
- Button positions are ordered from left to right.



### Stage 1:

If the display is 1, press the button in the second position.

If the display is 2, press the button in the second position.

If the display is 3, press the button in the third position.

If the display is 4, press the button in the fourth position.

### Stage 2:

If the display is 1, press the button labeled "4".

If the display is 2, press the button in the same position as you pressed in stage 1.

If the display is 3, press the button in the first position.

If the display is 4, press the button in the same position as you pressed in stage 1.

### Stage 3:

If the display is 1, press the button with the same label you pressed in stage 2.

If the display is 2, press the button with the same label you pressed in stage 1.

If the display is 3, press the button in the third position.

If the display is 4, press the button labeled "4".

### Stage 4:

If the display is 1, press the button in the same position as you pressed in stage 1.

If the display is 2, press the button in the first position.

If the display is 3, press the button in the same position as you pressed in stage 2.

If the display is 4, press the button in the same position as you pressed in stage 2.

### Stage 5:

If the display is 1, press the button with the same label you pressed in stage 1.

If the display is 2, press the button with the same label you pressed in stage 2.

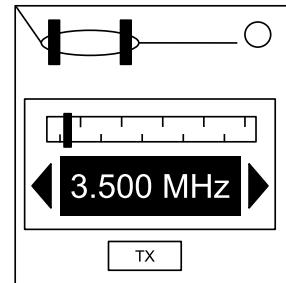
If the display is 3, press the button with the same label you pressed in stage 4.

If the display is 4, press the button with the same label you pressed in stage 3.

## On the Subject of Morse Code

An antiquated form of naval communication? What next? At least it's genuine Morse Code, so pay attention and you might just learn something.

- Interpret the signal from the flashing light using the Morse Code chart to spell one of the words in the table.
- The signal will loop, with a long gap between repetitions.
- Once the word is identified, set the corresponding frequency and press the transmit (TX) button.



### How to Interpret

- A short flash represents a dot.
- A long flash represents a dash.
- There is a long gap between letters.
- There is a very long gap before the word repeats.

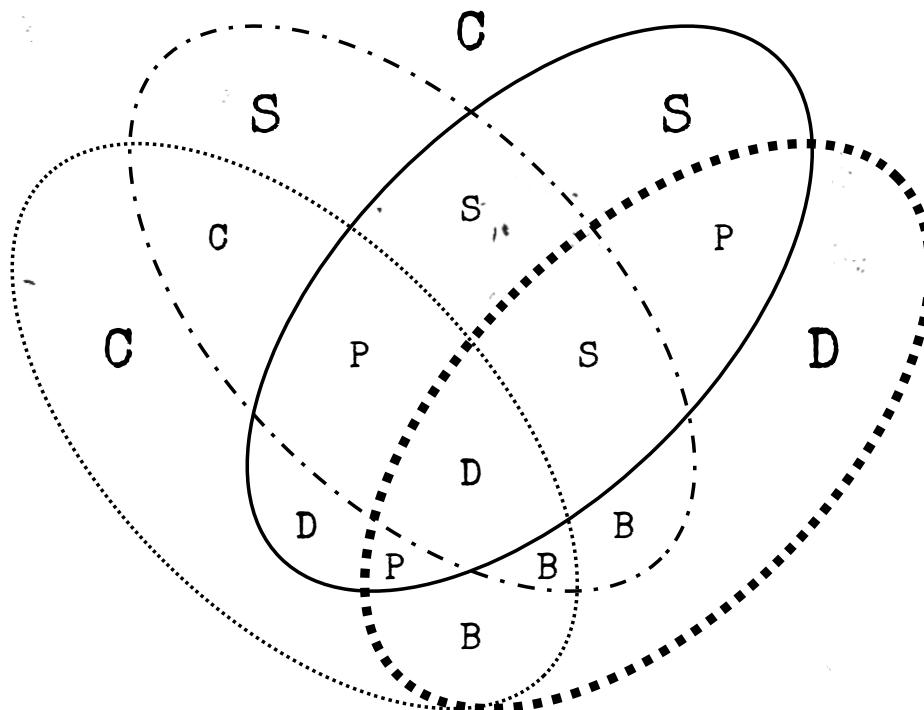
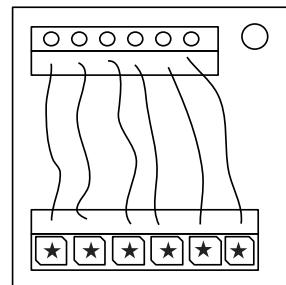
A	● -	U	● • -
B	- - . .	V	● • • -
C	- - . - .	W	● - -
D	- - . .	X	- - . -
E	●	Y	- - . - -
F	● . - - .	Z	- - - . .
G	- - - .		
H	● . . .		
I	● ●		
J	● - - -		
K	- - . -	1	● - - - -
L	. - - .	2	● . - - -
M	- - -	3	● • - -
N	- - .	4	● • • -
O	- - -	5	● • • .
P	● - - - .	6	- - . . .
Q	- - - . -	7	- - - . .
R	. - - .	8	- - - - .
S	● . .	9	- - - - - .
T	- -	0	- - - - -

If the word is:	Respond at frequency:
shell	3.505 MHz
halls	3.515 MHz
slick	3.522 MHz
trick	3.532 MHz
boxes	3.535 MHz
leaks	3.542 MHz
strobe	3.545 MHz
bistro	3.552 MHz
flick	3.555 MHz
bombs	3.565 MHz
break	3.572 MHz
brick	3.575 MHz
steak	3.582 MHz
sting	3.592 MHz
vector	3.595 MHz
beats	3.600 MHz

## On the Subject of Complicated Wires

These wires aren't like the others. Some have stripes! That makes them completely different. The good news is that we've found a concise set of instructions on what to do about it! Maybe too concise...

- Look at each wire: there is an LED above the wire and a space for a ★ symbol below the wire.
- For each wire/LED/symbol combination, use the Venn diagram below to decide whether or not to cut the wire.
- Each wire may be striped with multiple colors.



	Wire has red coloring
	Wire has blue coloring
	Has ★ symbol
	LED is on

Letter	Instruction
C	Cut the wire
D	Do not cut the wire
S	Cut the wire if the last digit of the serial number is even
P	Cut the wire if the bomb has a parallel port
B	Cut the wire if the bomb has two or more batteries

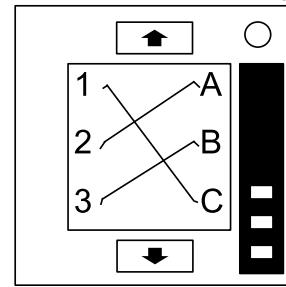
See Appendix B for battery identification reference.

See Appendix C for port identification reference.

## On the Subject of Wire Sequences

*It's hard to say how this mechanism works. The engineering is pretty impressive, but there must have been an easier way to manage nine wires.*

- Within this module there are several panels with wires on them, but only one panel is visible at a time. Switch to the next panel by using the down button and the previous panel by using the up button.
- Do not switch to the next panel until you are sure that you have cut all necessary wires on the current panel.
- Cut the wires as directed by the following table. Wire occurrences are cumulative over all panels within the module.

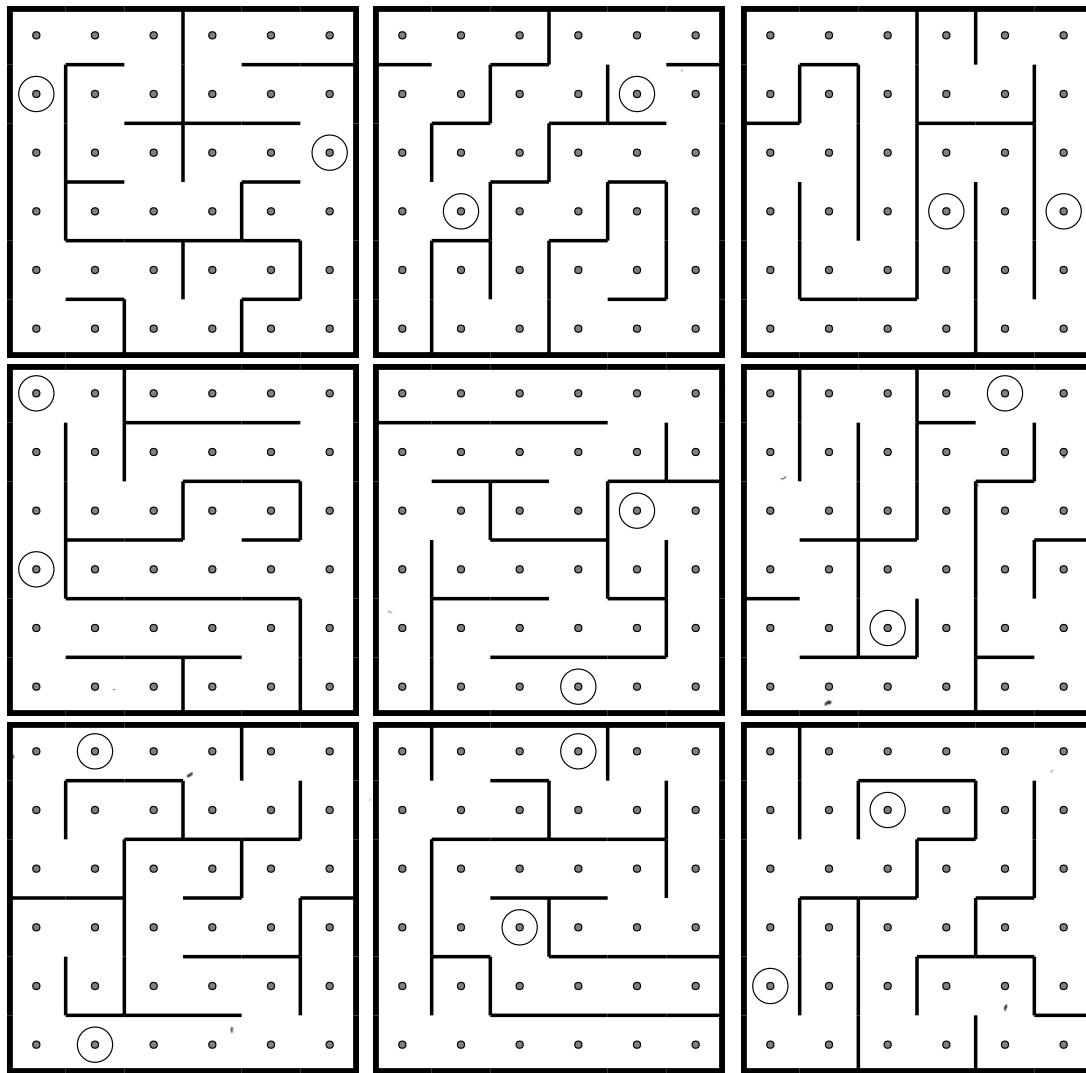
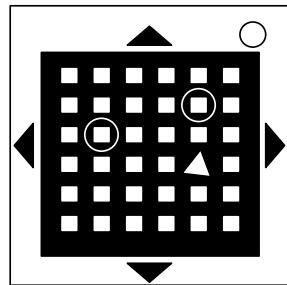


Red Wire Occurrences		Blue Wire Occurrences		Black Wire Occurrences	
Wire Occurrence	Cut if connected to:	Wire Occurrence	Cut if connected to:	Wire Occurrence	Cut if connected to:
First red occurrence	C	First blue occurrence	B	First black occurrence	A, B or C
Second red occurrence	B	Second blue occurrence	A or C	Second black occurrence	A or C
Third red occurrence	A	Third blue occurrence	B	Third black occurrence	B
Fourth red occurrence	A or C	Fourth blue occurrence	A	Fourth black occurrence	A or C
Fifth red occurrence	B	Fifth blue occurrence	B	Fifth black occurrence	B
Sixth red occurrence	A or C	Sixth blue occurrence	B or C	Sixth black occurrence	B or C
Seventh red occurrence	A, B or C	Seventh blue occurrence	C	Seventh black occurrence	A or B
Eighth red occurrence	A or B	Eighth blue occurrence	A or C	Eighth black occurrence	C
Ninth red occurrence	B	Ninth blue occurrence	A	Ninth black occurrence	C

## On the Subject of Mazes

*This seems to be some kind of maze, probably stolen off of a restaurant placemat.*

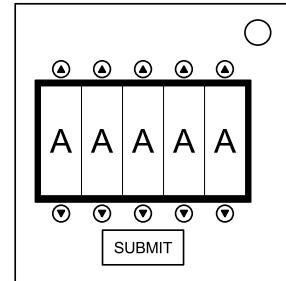
- Find the maze with matching circular markings.
- The defuser must navigate the white light to the red triangle using the arrow buttons.
- **Warning:** Do not cross the lines shown in the maze. These lines are invisible on the bomb.



## On the Subject of Passwords

Fortunately this password doesn't seem to meet standard government security requirements: 22 characters, mixed case, numbers in random order without any palindromes above length 3.

- The buttons above and below each letter will cycle through the possibilities for that position.
- Only one combination of the available letters will match a password below.
- Press the submit button once the correct word has been set.



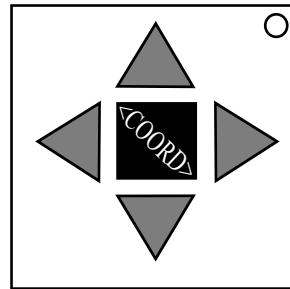
about	after	again	below	could
every	first	found	great	house
large	learn	never	other	place
plant	point	right	small	sound
spell	still	study	their	there
these	thing	think	three	water
where	which	world	would	write

## On the Subject of Blue Arrows

*Like a guide, pointing at the completely wrong thing.*

On the module are 4 directional buttons, and a display screen in the middle.

If the buttons are not Blue, you're looking at a different module.



On the screen is a coordinate within the first grid below. Find where that spot is, and assign each arrow a letter relative to that position, by giving the letter directly above it to the Up button, the letter directly below it to the Down button, and etc. If the position is on the edge of the chart or next to a bolded letter in a cell, loop to the other side of the chart and use the first non-bolded letter.

Next, determine the **Priority String** using the instructions given.

To disarm the module, press all four buttons in the correct order based on the **Priority String**. That is, the first button's letter that appears in the **Priority String** reading from left to right is the first move, and then the second, and so on.

Pressing an incorrect button will reset the module and give a new coordinate.

	A	1	B	8	F	4	E	6
C	A	G	Y	F	J	D	K	B
3	K	E	I	T	S	R	P	P
G	J	O	N	D	X	W	I	T
7	B	Z	Q	K	A	U	L	N
D	V	S	G	C	O	H	H	Y
5	F	N	M	P	L	R	T	B
H	W	R	E	U	F	Z	V	O
2	D	A	X	I	M	C	S	Q

## Determining the Priority String

1. Start with the entire English alphabet in order.
2. Caesar shift the string down by the last digit of the Serial Number. Going down mean to go from B to A, A to Z, Z to Y, etc.
3. Move the first letter of the Serial Number to the front of the string. If it's already in front, move it to the back instead.
4. Check each condition in the table below in order, from top to bottom. If it returns true, perform the action specified by that row to the current string.

<u>Condition</u>	<u>Action</u>
Lit BOB indicator present, no batteries, no port plates, no unlit indicators, and Serial Number contains a vowel.	Revert the string back to the entire alphabet in order and ignore the rest of the table.
Lit BOB indicator present.	Reverse the entire string.
Even number of batteries.	Move all vowels to the back of the string, keeping the order they appeared.
DVI-D port NOT present.	Reverse the second half of the string.
Stereo RCA port present.	Move R, C, and A to the front of the string, placing them in the mentioned order.
The coordinate consists of numbers ONLY and the previous condition was true.	Undo the action performed in the previous row.
Odd number of batteries holders.	Take all prime numbered positions out of the string, form a substring with order of appearance, reverse it, and put it back at the very front of the main string.
A "Yellow Arrows", "Green Arrows", or "The Sphere" module is present.	Move everything currently between the letters A and E to the very front of the string.
The Up Arrow's assigned letter is a vowel.	Take the alphanumeric position of the Left button's letter, and Caesar shift the entire string down by that number.

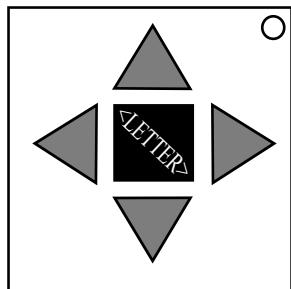
<u>Condition</u>	<u>Action</u>
The Down Arrow's assigned letter is a vowel.	Reverse the first half of the string.
The coordinate consists of letters ONLY.	Move X to the back of the string.

## On the Subject of Yellow Arrows

Points!

On the module are 4 directional buttons, and a display screen in the middle.

If the buttons are not Yellow, you're looking at a different module.



On the display is a random English letter. That is your **Starting Row**. Then, take the last digit of the Serial Number plus one, and move down that many rows. Perform that instruction, and move down again by the same number (If Z is reached but you still have more down moves, loop back to A and continue). Keep doing that, and the module will be disarmed after 5 consecutive correct presses.

Pressing an incorrect button will register a Strike, and the module will reset itself with a new **Starting Row**, and you must start over.

Letter	Press.../If.../Otherwise..
A	Up/The Up button is present/Eat a Screwdriver
B	Down/Previous input is Left/Right
C	Left/The Serial Number ends with a 3/Up
D	Up/This is the Starting Row/Down
E	Right/Lit SIG present/Left
F	Down/No (PS/2) port present on the bomb/Any
G	Up/Down hasn't been pressed yet/Down
H	Any/Serial Port present/Right
I	Down/No Needy present/Any
J	Left/Previous input was Down/Up
K	Down/9 is an odd number/Go back to kindergarten
L	Up/No batteries on bomb/Down
M	Right/Number of battery holders is less than 3/Left
N	Any/This is the Starting Row/Right
O	Left/The Serial Number contains the letter O/Down

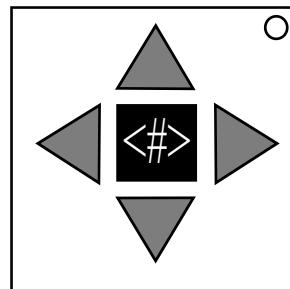
Letter	Press.../If.../Otherwise..
P	Down/Serial Number has 4 letters/Up
Q	Down/Previous input was Right/Left
R	Up/Unlit CLR present/Down
S	Left/You're not on the 42nd of June/Quit Game
T	Left/Number of batteries is even/Down
U	Any/No modules on bomb starts with a Y/Any
V	Up/Previous input was Up/Down
W	Right/No port plates present/Any
X	Up/This is the Starting Row/Left
Y	Any/Up hasn't been pressed yet/Up
Z	Right/Right is Right OR is on the Right/Right

## On the Subject of Red Arrows

*I think you get the point now.*

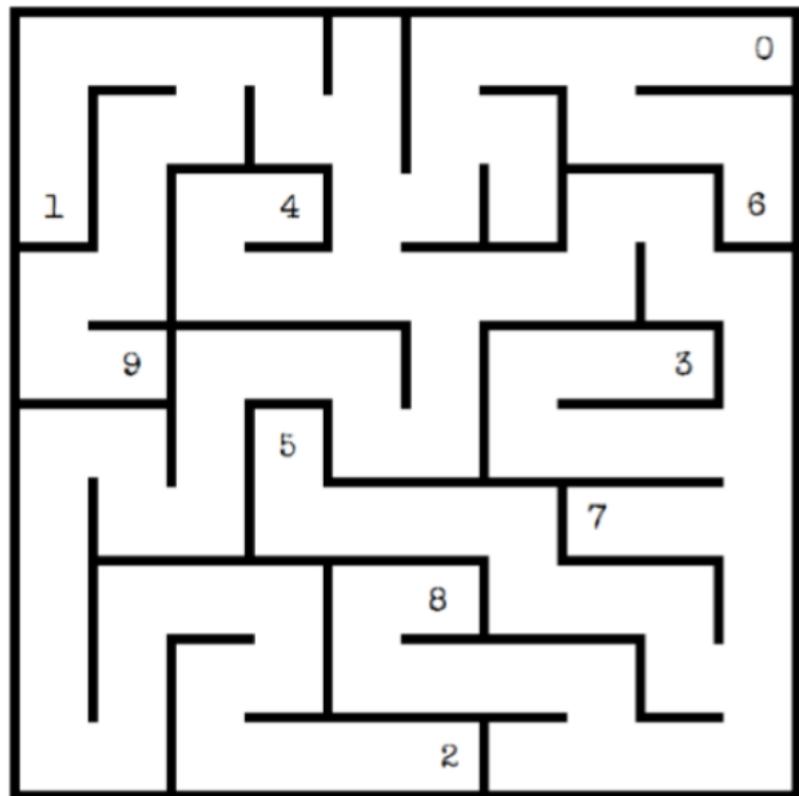
On the module are 4 directional buttons, and a display screen in the middle.

If the buttons are not Red, you're looking at a different module.



On the screen is a random number somewhere between 0 to 9. That is your starting position in the maze below. Once your first valid move have been made, the display will turn blank.

To solve the module, use the buttons to navigate the maze toward the last digit of the Serial Number.

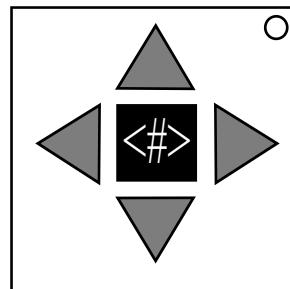


## On the Subject of Green Arrows

*What's the point?*

On the module are 4 directional buttons, and a display screen in the middle.

If the buttons are not Green, you're looking at a different module.



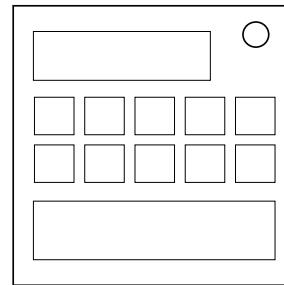
On the screen is a random number somewhere between 00 and 99. Look at the table below to find the correct button to press. Use the 10s digit as the column, and the 1s digit as the row. After each correct presses, the number will change. Keep repeating the process, and the module will be disarmed after 7 consecutive correct presses. Pressing the wrong button will register a strike and reset your streak.

	1-	2-	3-	4-	5-	6-	7-	8-	9-	0-
-0	Up	Right	Left	Right	Up	Right	Left	Right	Up	Down
-9	Left	Right	Up	Down	Left	Down	Up	Down	Left	Right
-8	Down	Up	Right	Left	Right	Down	Right	Left	Down	Up
-7	Up	Down	Up	Down	Up	Right	Left	Right	Up	Down
-6	Left	Right	Left	Right	Left	Down	Down	Up	Left	Right
-5	Down	Up	Down	Up	Down	Up	Left	Down	Down	Up
-4	Up	Down	Right	Up	Right	Down	Up	Left	Up	Down
-3	Left	Right	Up	Right	Up	Right	Right	Up	Left	Right
-2	Down	Up	Down	Up	Down	Up	Up	Right	Down	Up
-1	Up	Down	Right	Left	Down	Left	Right	Up	Down	Left

## On the Subject of Zoni

Remember, the universe has a wonderful sense of humour. The trick is, learning how to take a joke.

This module displays a word encoded in the Zoni language. Using the **conversion table**, convert the word into English.



Using the **word table**, press the correct numbered button according to the word displayed on the module. An incorrect button press will cause a strike. After 3 correct button presses the module will disarm.

### Conversion table:

A	B	C	D	E	F	G	H	I	J	K	L	M
Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓘ	Ⓛ	Ⓜ	Ⓝ	Ⓜ
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Ⓝ	●	Ⓒ	Ⓠ	Ⓡ	Ⓢ	Ⓣ	Ⓤ	Ⓥ	Ⓦ	Ⓧ	Ⓨ	Ⓩ
0	1	2	3	4	5	6	7	8	9			
—	÷	÷	÷	≡	≡	≡	≡	≡	≡	≡	≡	≡

### Word table:

Word:	#:												
angel	1	large	5	enemy	7	pizza	4	piano	6	after	2		
smile	6	thing	7	blood	1	phone	3	never	0	every	9		
brain	3	radio	1	dance	0	plaza	6	bread	8	clear	4		
awful	0	other	7	crazy	8	heavy	2	flush	5	water	1		
yacht	6	jumpy	9	brick	1	queen	4	quote	3	ovens	2		
learn	4	there	8	ghost	9	spook	2	point	0	found	3		
clank	7	crack	1	timer	8	extra	4	plant	6	quark	5		
voice	6	magic	2	devil	7	magma	8	idiot	9	index	4		
light	1	great	0	image	5	pilot	3	quest	4	greed	8		

## On the Subject of Mistake Modules

*Somewhere deep inside, I know it may be wrong, but I'm ready to commit Mistake No. 2.*

Our deepest apologies, but the bomb you were sent contains an unfinished module where the components were not added on schedule. For that reason, we ask that you must destroy it. However, even though there are no components, the internal circuitry of the module is still present.

Since there are no components, the plastic of the module is very fragile, and can be destroyed simply by touching it. However, the circuitry is still active, and won't allow you to touch the module whenever you want. Read below to learn what we suggest you do so you don't get unintentional strikes on your bomb.

We also understand that there are other functional modules that look identical to the one you were accidentally sent. Appendix NOT contains information about how to differentiate this module from those modules.

### Disarming this module:

You should be able to touch the module once without any problems. If done correctly, you should hear the plastic shattering and the module should crack.

Be careful from now on, we don't think that touching the module anytime is safe anymore. We suggest that you touch it a second time when the last digit of the bomb's timer is equal to the last digit of the bomb's serial number.

Don't worry, this is the last instruction we give you. If our hypotheses are correct, you can touch the module again when the seconds section of the bomb's timer are equal to the sum of the digits of the bomb's serial number. This should solve the module after a few seconds. If it doesn't, please contact us.

Should the module give a strike, the module will still shatter, and you should proceed to the next direction above. The module may also solve even if it struck you shortly before. However, we don't suggest that you keep touching it.

Thank you for your cooperation. - The workers at the Bomb Factory

We don't receive enough credit.

## **Differentiating this module from others:**

### **Hinges:**

On a Hinges module, the status light is not initially visible and some of the hinges of the plastic are missing. The module you were sent has all the hinges intact and the status light should always be visible.

### **Braille:**

When hovering over a Braille module, you can feel dots in Braille. There are no dots on the module you were sent.

### **Polygons:**

When hovering over a Polygons module, you can see the outlines of the hidden shapes. There are no hidden shapes on the module you were sent.

### **Blind Alley:**

When hovering over a Blind Alley module, you can hear the eight different sections of the module. The module you were sent only has one section. If you are unable to hear the differing sections, touching the status light of a Blind Alley module does nothing. On the module you were sent, pressing it will make the module shatter.

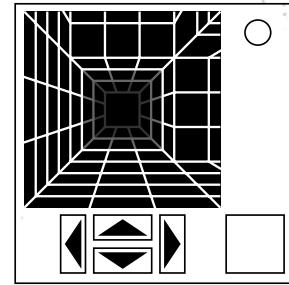
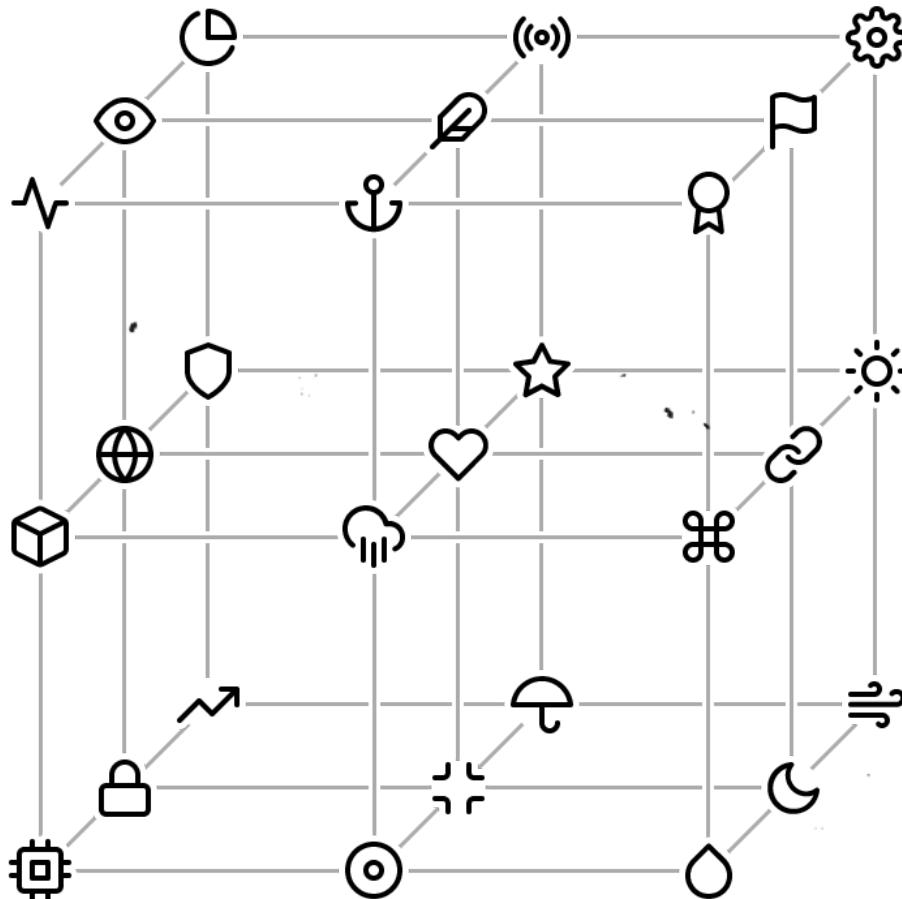
### **Tap Code:**

Unfortunately, the module you were sent can't be distinguished from a Tap Code module by hovering over parts of the module. However, when touching on a Tap Code module anywhere, it will either play a series of taps or record the taps you entered. Either way, the module will not appear to shatter, as the module you were sent does. This is also completely safe because the input for a Tap Code module can be reset at any time by holding the module.

Our reports of defusers encountering this module have also led us to believe that it will only appear on the side of the bomb that contains the timer.

# On the Subject of 3D Tunnels

*Let's take this to another dimension.*



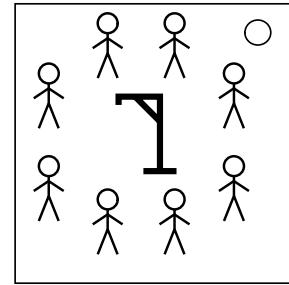
You control a hovercraft inside a grid of nodes connected by tunnels. Nodes are identified by a unique symbol. Use the four arrow buttons to travel through the grid. There's also a button with a symbol on it, representing your next goal node. Travel there and press the goal button. Repeat this three times to solve the module.

- Only some of the nodes will show the symbol of that node. Find them to determine your current location and orientation.
  - The arrow buttons *rotate* the hovercraft in that direction. The thrust button is broken and has been removed. (But no worries! I've fixed it!) **After every rotate command, the hovercraft will go one node forward.**
  - If you fly into a wall, you'll get a strike.
  - If you press the goal button while not at the goal node, you'll get a strike.

## On the Subject of Mafia

*Godfather is him, Mafia is her, kill them, save them. I'm innocent! ....AHHHHH!*

In this module, there are 8 named people that sit around a gallows. It's your job to deduce who is the Godfather, whom you then have to execute. To figure out who is the Godfather, follow the following instructions:



- Take all the values of the serial number, changing letters into numbers by their placement in the alphabet (A=1, B=2 etc.), and add them together.
- Starting from the top of the list below, count this many names. Then keep going until you get to a name that's on the module. If you go past #50, loop back around to #1.
- Rule out people by crossing off the name from the previous step and going around the circle by skipping people equal to the last number of the serial. Go clockwise if you have less than 2 indicators and counter-clockwise otherwise.
- Continue around the circle, skipping over people you have ruled out, until you have one person left.
- Find the name that's left in the table and look at their "Innocence Condition". If they do not meet the condition, they are the Godfather and should be executed. If they are found innocent, execute the person referred to in the "Otherwise" column.

\*FRP = First Ruled-out Person

\*LRP = Last Ruled-out Person

\*SSN = Same Side Neighbor (Person who is on the same side of the module with them: top 2, bottom 2, left 2, right 2)

#	Name	Innocent/Godfather Condition	Otherwise, Godfather is...
1	Rob	Innocent if the serial number contains a vowel.	Person clockwise after Rob.
2	Tim	Innocent if there is a "Friendship", "Only Connect", "Battleship" or "Marble Tumble".	FRP
3	Mary	Innocent if Bob, Walter or Cher is present.	Person on the left in the top pair, SSN if it is Mary.
4	Briane	Innocent if there is a Two Factor or lit CAR indicator.	LRP
5	Hunter	Innocent if there are more ports than batteries.	Rick, or 4th ruled-out player if Rick is absent.
6	Macy	Innocent if Tommy is present.	Tommy
7	John	Innocent if John is the only person on the module whose name starts with "J".	SSN
8	Will	Innocent if there is a PS/2 or DVI port and at least one even number in the serial number.	5th person ruled out.
9	Lacy	Innocent if there is a "Boolean Venn Diagram", "Bitwise Operations", or any module containing "Logic" in its name.	SSN
10	Claire	Innocent if there are less than 20 modules.	LRP
11	Kenny	Innocent if there are <u>no</u> unlit indicators.	Person clockwise after FRP (skip Kenny)
12	Rick	Innocent if there is an empty port plate.	Person counterclockwise from Rick.
13	Walter	Innocent if serial number contains any letters from Walter's name.	FRP
14	Bonnie	Innocent if there is another person on the module whose name starts with "B".	First person clockwise from Bonnie whose name starts with "B".
15	Luke	Always Innocent.	Person with lowest number (excluding Luke).
16	Bill	Innocent if last number of serial number is prime or zero.	Person with highest number (excluding Bill).

N#	Name	Innocent/Godfather Condition	Otherwise, Godfather is...
17	Sarah	Innocent if there is a colored indicator, HDMI port, or if "S", "H", or "3" is in the serial number.	LRP
18	Larry	Larry is colorblind. Innocent if there are <u>no</u> modules containing "Color" in their name.	FRP
19	Kate	Innocent if there is an "L", "O", "S", or "T" in the serial number, or if "The Swan" is present.	John; SSN if John is absent
20	Stacy	Innocent if there are fewer modules than starting time in minutes.	FRP
21	Diane	Innocent if there is a VGA or USB port, or if there is "The Screw".	LRP
22	Mac	Innocent if there is a parallel port on the same plate as a serial port.	6th person ruled out
23	Jim	Jim is a musician. Innocent if there is a "Chord Qualities", "Rhythms", or any module with "Piano Keys", "Jukebox" or "Guitar Chords" in the name.	SSN
24	Clyde	Innocent if Bonnie is present.	Bonnie
25	Tommy	Innocent if there are <u>neither</u> batteries nor ports.	4th person ruled out
26	Lenny	Innocent if SSN's name does <u>not</u> contain exactly 3 letters.	SSN
27	Molly	Innocent if there is <u>no</u> module apart from Mafia whose name starts with "M" or "The M".	Person clockwise after Molly.
28	Benny	Innocent if Hunter, Cher, or Nick are not the FRP.	The third person after Benny in clockwise order.
29	Phil	Innocent if not on the right of the bottom two.	Person on the right of the bottom two.
30	Bob	Innocent if there is "Laundry", "Morse-A-Maze", "Big Circle", "Painting", "Dr. Doctor", "The Code", or a BOB indicator.  Thanks for everything, Bob!	3rd person ruled out.
31	Gary	Gary is lazy and likes to eat. Innocent if there is a "Cheap Checkout", "Ice Cream" or "Cooking".	LRP
32	Ted	Ted is an astronaut. Innocent if there is a "Black Hole", "The Sun", "The Moon", "Lightspeed" or "Astrology".	SSN
33	Kim	Innocent if FRP's number is 25 or less.	FRP

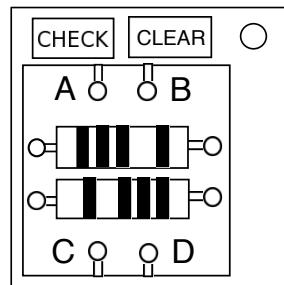
N#	Name	Innocent/Godfather Condition	Otherwise, Godfather is...
34	Nate	Innocent if there are more lit indicators than unlit.	Person clockwise after Nate.
35	Cher	Innocent if there is <u>no</u> needy module and 1 or more ports.	LRP
36	Ron	Innocent if letters of the serial number share letters with any indicator on the bomb.	SSN
37	Thomas	Thomas doesn't like being stuck in mazes. Innocent if there is <u>no</u> module with "maze" in the name.	Second person counterclockwise after Thomas.
38	Sam	Innocent if there is "Creation", "The Gamepad", "Minesweeper" or "Skewed Slots".	LRP
39	Duke	Innocent if LRP's number is greater than 25.	LRP
40	Jack	Innocent if SSN has 4 letters in their name.	SSN
41	Ed	Innocent if the total number of "Gridlock", "Human Resources", "Lasers" and modules containing "Double-Oh" is exactly one.	2nd person ruled out.
42	Ronny	Innocent if there are <u>no</u> vanilla modules or there are 4 or more ports.	FRP
43	Terry	Innocent if there are 3 or more batteries on the bomb.	3rd person ruled out.
44	Claira	Innocent if there are at least two port plates that have at least an RJ, RCA, or PS/2 port on them.	SSN
45	Nick	Innocent if there is <u>no</u> "Zoo", "Nonogram", "Murder" or "X01".	FRP
46	Cob	Cob loves inception. Innocent if there are 2 or more of the same module.	First person clockwise from Cob with the most letters in their name.
47	Ash	Innocent if there are any modules pertaining to Monsplodes.	LRP
48	Don	<u>Always guilty.</u>	N/A
49	Jerry	Innocent if "The Clock", "Rubik's Clock", "The Stopwatch", "Timezone" or "The Time Keeper" is present.	Person counterclockwise after Jerry.
50	Simon	Simon likes to be alone. Innocent if there are <u>no</u> modules with Simon's name.	SSN

## On the Subject of Resistors

*"It is easier to resist at the beginning than at the end."*

- Leonardo da Vinci, on procrastination

The module contains 2 input pins (**A** and **B**), 2 resistors, and 2 output pins (**C** and **D**). Follow the rules to make the correct connections. To make a connection, click one pin and then another. Press **CLEAR** to remove all connections.



1. Take the first digit of the bomb's serial number (or 0 if there are no digits).  
The *primary input* is **A** if even, **B** if odd.

2. Take the last digit of the bomb's serial number (or 0 if there are no digits).  
The *primary output* is **C** if even, **D** if odd.

3. The *target resistance* in  $\Omega$  is calculated as follows:

1. Take the first two digits of the bomb's serial number.

e.g. 2E7X19  $\rightarrow$  27, ZJ3MLN  $\rightarrow$  3, ABCDEF  $\rightarrow$  0

2. For each battery present on the bomb (up to a max of 6), multiply by 10.

4. Connect the primary input to the primary output, with the target resistance.

*Note: all resistance values are checked to be within 5% accuracy.*

5. If a lit **FRK** indicator is present, also connect the primary input to the other (secondary) output, with the target resistance.

*Note: this means C and D will also be connected with some non-infinite resistance. This value is not checked as part of your solution, and so can be anything.*

6. If step 5 did not apply and at least 1 D cell battery is present, connect the secondary input to the secondary output, with  $0\Omega$  resistance.

7. Press **CHECK** when finished to check the solution. All input/output pairs not mentioned should be disconnected.

Consult the following page to learn how to produce the target resistance.

## Producing resistance

An input and output can be connected via one of five paths.

1. **No resistors**,  $0\Omega$  of resistance.

2. **Top resistor**.

3. **Bottom resistor**.

4. **Both resistors in serial**.

i.e. input → top resistor → bottom resistor → output

The combined resistance is the sum of the individual resistances.

5. **Both resistors in parallel**.

i.e. input → top resistor, input → bottom resistor,  
top resistor → output, bottom resistor → output

The combined resistance is less than either of the individual resistances.

*For the curious... it's:  $1 / (1 / (\text{top resistance}) + 1 / (\text{bottom resistance}))$*

*Don't worry, this won't be on the test!*

## Reading resistors

Each resistor has a sequence of three colored bands, indicating a two-digit number and a multiplier. A fourth band indicates a tolerance value (not used). The fourth band is separated by a gap from the first three. Resistors can be rotated; take care to read the bands in the correct direction.

Color	First Band	Second Band	Multiplier
Black	0	0	$1\Omega$
Brown	1	1	$10\Omega$
Red	2	2	$100\Omega$
Orange	3	3	$1,000\Omega$
Yellow	4	4	$10,000\Omega$
Green	5	5	$100,000\Omega$
Blue	6	6	$1,000,000\Omega$
Violet	7	7	$10,000,000\Omega$
Gray	8	8	—
White	9	9	—
Gold	—	—	$0.1\Omega$
Silver	—	—	$0.01\Omega$

For example, **Green Violet Yellow** indicates  $57 \times 10,000\Omega = 570,000\Omega$ .

## On the Subject of Logic

Logic is easy, but logic AND bomb defusal might not.

- Each row displays 3 letters. Each letter represents a statement which can be found in table 1.
- On each row, solve the statements inside the brackets first.
- Statements are joined with logical connective symbols. Find how each symbol works in table 2.
- Apply negation (NOT gate: false becomes true and true becomes false) to each statement first if the red LED above that statement is lit.
- Find the end result of each row, and then use the T/F button to the right to select True/False. Press “Submit” when done.

See Appendix A for indicator identification reference.

See Appendix B for battery identification reference.

See Appendix C for port identification reference.

**Table 1: Statement list**

Letter	Statement	Letter	Statement
A	Number of batteries = number of indicators	N	More than 2 battery holders
B	Serial number has more letters than digits	O	Has both lit and unlit indicators
C	Has IND indicator	P	Has parallel port
D	Has FRK indicator	Q	Exactly 2 ports
E	Exactly 1 unlit indicator	R	Has PS/2 port
F	More than 1 port type	S	Sum of digits in serial number > 10
G	2 batteries or more	T	Has MSA indicator
H	Less than 2 batteries	U	Exactly 1 battery holder
I	Last digit of serial number is odd	V	Serial number contains vowels
J	More than 4 batteries	W	No indicators
K	Exactly 1 lit indicator	X	Exactly 1 indicator
L	More than 2 indicators	Y	More than 5 ports
M	No duplicate ports	Z	Less than 2 ports

**Table 2: Logical connective symbol list**

Logical Connective	Symbol	Logic Gate Equivalent	Meaning
Conjunction	$\wedge$	AND	Returns true if all inputs are true. Else returns false.
Disjunction	$\vee$	OR	Returns true if any input is true. Else returns false.
Exclusive Disjunction	$\vee\!\vee$	XOR	Returns true if exactly one input is true. Else returns false.
Alternative Denial	!	NAND	Returns false if all inputs are true. Else returns true.
Joint Denial	$\downarrow$	NOR	Returns false if any input is true. Else returns true.
Biconditional	$\leftrightarrow$	XNOR	Returns false if exactly one input is true. Else returns true.
Implication (Left)	$\rightarrow$	-	Returns false when left input is true and right input is false. Else returns true.
Implication (Right)	$\leftarrow$	-	Returns false when left input is false and right input is true. Else returns true.

## On the Subject of Wire Placement

Sometimes, the wire may look like a face, calming you down... and then you explode.

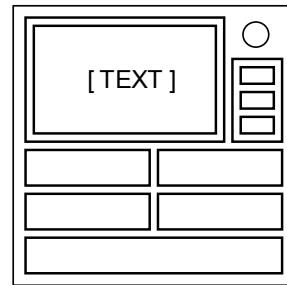
- This module contains a grid of wires.
- There are always 8 wires on it.
- Wires can be red, blue, yellow, black or white.
- In the following table, use only the column corresponding to the color of the wire connected to C3.
- Cut a wire if it is a specific color and is connected to a specific spot on the grid as indicated in the table.

A	B	C	D	
1	~	{ } { }		
2		{ }		
3				
4	~	{ } { }		

		Wire connected to C3 is				
		Black	Blue	Red	White	Yellow
Cut if color		is connected to:				
Yellow		D2	D1	D2	A2	D1
Blue		A2	C4	A1	C4	D4
White		D3	D2	D4	B3	B2
White		B2	C1	B4	A1	C1
Red		A1	B3	C4	B2	B3
Blue		C3	C2	C1	D3	B1
Black		B1	D4	A4	D2	B4
Red		C4	D3	B1	C1	C2
Yellow		A3	C3	A2	A4	A3
Yellow		D1	A1	B2	B4	A4

## On the Subject of Sea Shells

*Clear communication is crucial when defusing bombs. One can only assume that this module doesn't want to be defused.*



- The Sea Shells module consists of a display and five buttons.
- The display shows a phrase. The first two words of the phrase refer to a row of Table 1. The third and fourth words refer to a column of Table 1. The remainder of the phrase refers to Table 2.
- Table 1 will give a code, and Table 2 will provide a key to turn the code into a sequence of words.
- The buttons must be used to input the sequence of words. Pressing an incorrect button will result in a strike and reset the current stage of the module.
- Inputting a correct sequence three times will disarm the module.

Table 1:

	SEA SHELLS	SHE SHELLS	SEA SELLS	SHE SELLS
SHE SELLS	BDABDAB	ACEEAC	EACEACE	DAABDAB
SHE SHELLS	BEEBBE	CDCCDB	EAEEAA	BEEDA
SEA SHELLS	ABABA	EAAEEA	D BEAC	ABDBAA
SEA SELLS	ACACEAC	DBAEC	E BDADAB	CECEC

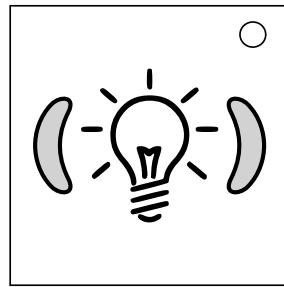
Table 2:

ON THE SEA SHORE	A = shoe D = sit	B = shih tzu E = sushi	C = she
ON THE SHE SORE	A = can D = 2	B = toucan E = cancan	C = tutu
ON THE SHE SURE	A = witch D = twitch	B = switch E = stitch	C = itch
ON THE SEESAW	A = burglar alarm D = burger	B = Bulgaria E = llama	C = armour

## On the Subject of The Bulb

*How many bomb defusal experts does it take to screw in a light bulb?*

This module has two buttons labeled **I** and **O** and a light bulb, which is either see-through (translucent) or opaque, and is one of six colors: blue, green, purple, red, white or yellow.



If you incur a strike because you pushed a wrong button, ignore it and continue. If you incur a strike because you unscrewed or screwed in the bulb at an incorrect time, you must undo that before continuing.

Begin at Step 1 below.

While the bulb is screwed in, a long press on either button will reset the module back to Step 1. Attempting this while the bulb is out will incur a strike.

**Step 1** • If the light is on and the bulb is see-through, press **I** and go to **Step 2**.

- If the light is on and the bulb is opaque, press **O** and go to **Step 3**.
- Otherwise, unscrew the bulb and go to **Step 4**.

**Step 2** • If the bulb is red, press **I**, then unscrew it and go to **Step 5**.

- If the bulb is white, press **O**, then unscrew it and go to **Step 6**.
- Otherwise, unscrew the bulb and go to **Step 7**.

**Step 3** • If the bulb is green, press **I**, then unscrew it and go to **Step 6**.

- If the bulb is purple, press **O**, then unscrew it and go to **Step 5**.
- Otherwise, unscrew the bulb and go to **Step 8**.

**Step 4** • If the bomb has any of the following indicators: CAR, IND, MSA or SND, press **I** and go to **Step 9**.

- Otherwise, press **O** and go to **Step 10**.

**Step 5** • If the light went off at Step 1, press the same button again, then screw the bulb back in.

- Otherwise, press the button you haven't yet pressed, then screw the bulb back in.

**Step 6** • If the bulb went off when you pressed **I**, press the button that you pressed in Step 1, then screw the bulb back in.

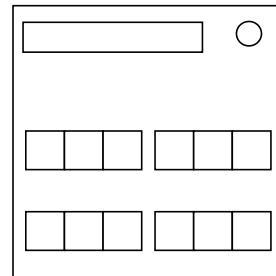
- Otherwise, press the button that you pressed in Step 2 or 3, then screw the bulb back in.

- Step 7**
- If the bulb is green, press **I**, remember SIG and go to **Step 11**.
  - If the bulb is purple, press **I**, then screw it back in and go to **Step 12**.
  - If the bulb is blue, press **O**, remember CLR and go to **Step 11**.
  - Otherwise, press **O**, then screw the bulb back in and go to **Step 13**.
- Step 8**
- If the bulb is white, press **I**, remember FRQ and go to **Step 11**.
  - If the bulb is red, press **I**, then screw it back in and go to **Step 13**.
  - If the bulb is yellow, press **O**, remember FRK and go to **Step 11**.
  - Otherwise, press **O**, then screw the bulb back in and go to **Step 12**.
- Step 9**
- If the bulb is blue, press **I** and go to **Step 14**.
  - If the bulb is green, press **I**, then screw it back in and go to **Step 12**.
  - If the bulb is yellow, press **O** and go to **Step 15**.
  - If the bulb is white, press **O**, then screw it back in and go to **Step 13**.
  - If the bulb is purple, screw it back in, then press **I** and go to **Step 12**.
  - Otherwise, screw the bulb back in, then press **O** and go to **Step 13**.
- Step 10**
- If the bulb is purple, press **I** and go to **Step 14**.
  - If the bulb is red, press **I**, then screw it back in and go to **Step 13**.
  - If the bulb is blue, press **O** and go to **Step 15**.
  - If the bulb is yellow, press **O**, then screw it back in and go to **Step 12**.
  - If the bulb is green, screw it back in, then press **I** and go to **Step 13**.
  - Otherwise, screw the bulb back in, then press **O** and go to **Step 12**.
- Step 11**
- If the bomb has the remembered indicator, press **I**, then screw the bulb back in.
  - Otherwise, press **O**, then screw the bulb back in.
- Step 12**
- If the light is now on, press **I**.
  - Otherwise, press **O**.
- Step 13**
- If the light is now on, press **O**.
  - Otherwise, press **I**.
- Step 14**
- If the bulb is opaque, press **I**, then screw the bulb back in.
  - Otherwise, press **O**, then screw the bulb back in.
- Step 15**
- If the bulb is see-through, press **I**, then screw the bulb back in.
  - Otherwise, press **O**, then screw the bulb back in.

## On the Subject of Connection Check

*What is this, some kind of circuit visualization? I don't even care anymore...*

- This module contains 4 number pairs placed on each side of 4 LEDs and a "Check" button.
- To disarm this module, you must follow these steps:



1. Find out in which chart you will be looking for connections, using the rules given below.
2. For each LED look at the numbers on each side of it and check if there is a line connecting the circles denoted with those numbers in the right chart.
3. If there is such a connection, switch the LED to GREEN, otherwise switch it to RED.
4. Press the "CHECK" button. If LED positions are correct, the module will disarm. Otherwise the bomb will register a strike.

*To determine the right chart on the next page you will need a character of the bomb's serial number. Use the following rules to find out which character you need. Then, on the next page, search for that character in the codes that label the charts. The chart with a code containing your character is the chart you are looking for.*

If all of the numbers on this module are **distinct**, use the **last** character of the serial number.

Otherwise, if there is **more than one "1"** on the module, look at the **first** character of the serial number.

Otherwise, if there is **more than one "7"** on the module, look at the **last** character of the serial number.

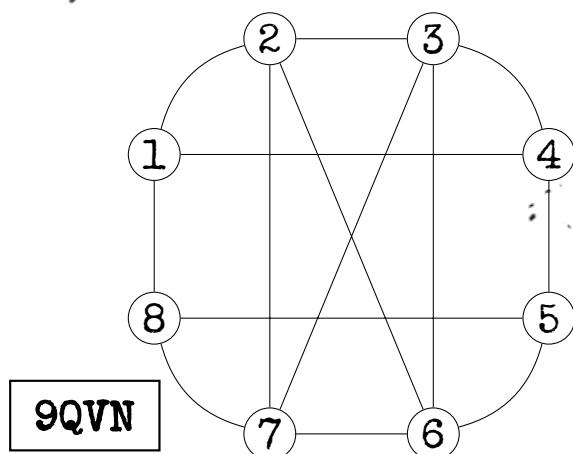
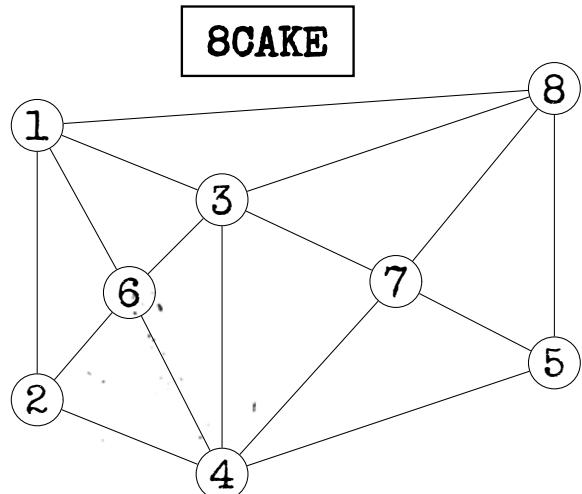
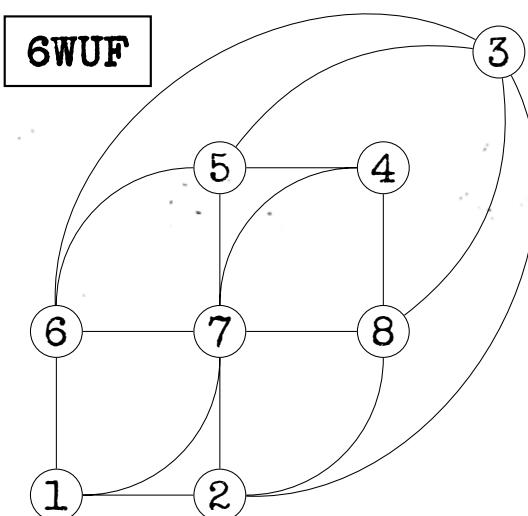
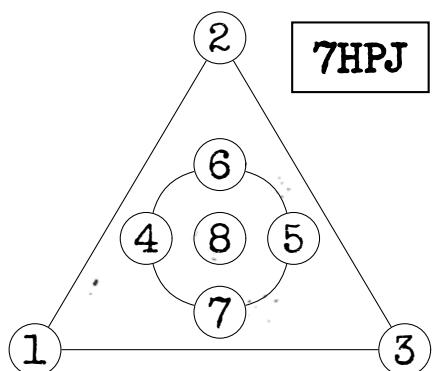
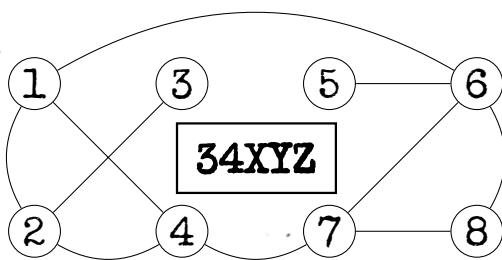
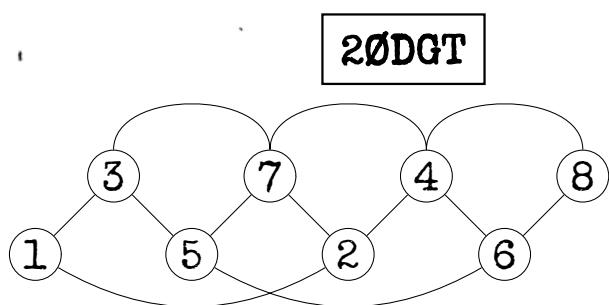
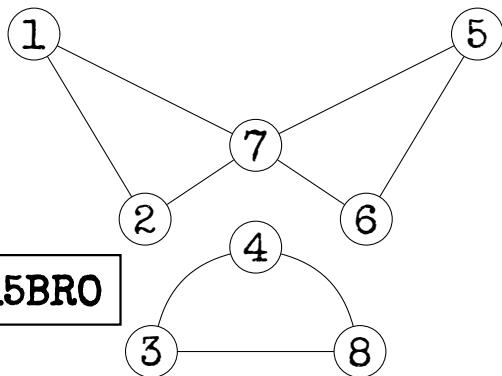
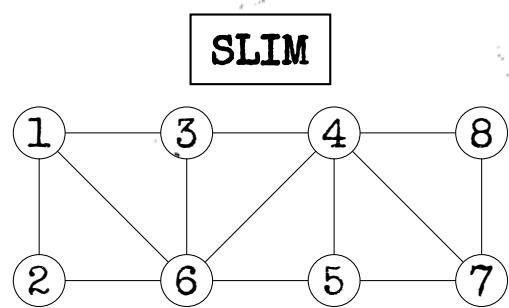
Otherwise, if there are **at least three "2"** on the module, look at the **second** character of the serial number.

Otherwise, if there is **no "5"** on the module, look at the **fifth** character of the serial number.

Otherwise, if there are **exactly two "8"**s on the module, look at the **third** character of the serial number.

Otherwise, if there are **more than 6 batteries or no batteries** on the bomb, look at the **last** character of the serial number.

Otherwise, **count the number of batteries** on the bomb. Use that number to decide which character of the serial number you should look at. E.g.: if there are 3 batteries, look at the third character of the serial number.

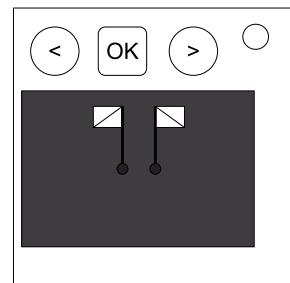


## On the Subject of Semaphore

*This module demands attention from the sea - unlucky for you the bomb's bone dry.*

*See the next page for semaphore reference.*

- A semaphore module will present with a previous button, a next button, an OK button and a semaphore indicator.
- Use the previous and next buttons to navigate through the semaphore sequence, starting from the left-most semaphore character to the right-most semaphore character.
- The semaphore sequence will contain some characters from the serial number on the bomb, but also includes one other character not present in the serial number.
- Navigate to the one and only character that is missing from the serial number, and then press the OK button.
- Control characters, such as 'Numerals', 'Letters', 'Error', 'Rest' and 'Cancel' are not considered as a valid answer.



## Semaphore Reference

Numbers are signalled by first signalling 'Numerals', then the numbers.  
Similarly, letters are signalled by first signalling 'Letters', then the letters.

Use the following graphics as a reference to how to interpret semaphore characters.

		 Error / Attention		
				
		 J or Letters		
				
				
				 Cancel / Annul

(All images by [Denelson83](#)

(<https://commons.wikimedia.org/wiki/User:Denelson83>), used under [CC-BY-SA-3.0](#)

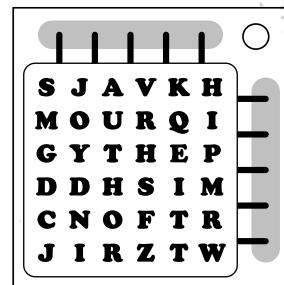
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## On the Subject of Word Search

LZIEAJDHARDERBNCOJWTHANPQIEYBZITLOOKSYWH

A field of 36 letters will appear on the screen within the module. Some of these letters will spell out words, which may be spelled backwards and appear in any direction.



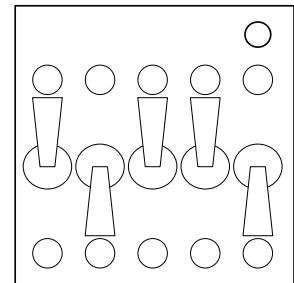
1. The chart below contains boxes with letters in the corners. For each of the four letters in the corners of the display, find a box on the chart that has that letter in the same corner.
2. Once all the relevant boxes have been located, use the last digit of the serial number (even or odd) to determine the correct words to reference.
3. Only one of those words will appear on the display. Select the first and last letter of the correct word to disarm the module. The bomb will record a strike if any other words are selected.

[even]	HOTEL	SEARCH	ADD	SIERRA	FINISH	
—	—	—	—	—	—	
[odd]	DONE	QUEBEC	CHECK	FIND	EAST	
—	V	U	S	Z		
PORT	BOOM	LINE	KABOOM	PANIC	MANUAL	DECOY
—	—	—	—	—	—	—
COLOR	SUBMIT	BLUE	ECHO	FALSE	ALARM	CALL
P	Q	N	X	F	Y	
SEE	INDIA	NUMBER	ZULU	VICTOR	DELTA	HELP
—	—	—	—	—	—	—
TWENTY	NORTH	LOOK	GREEN	XRAY	YES	LOCATE
T	I	M	E	D	A	
ROMEO	TRUE	MIKE	FOUND	BOMBS	WORK	TEST
—	—	—	—	—	—	—
BEEP	EXPERT	EDGE	RED	WORD	UNIQUE	JINX
K	B	W	H	J	O	
GOLF	TALK	BRAVO	SEVEN	MODULE	LIST	YANKEE
—	—	—	—	—	—	—
LETTER	SIX	SERIAL	TIMER	SPELL	TANGO	SOLVE
R	L	C	G			
CHART	MATH	READ	LIMA	COUNT		
—	—	—	—	—		
OSCAR	NEXT	LISTEN	FOUR	OFFICE		

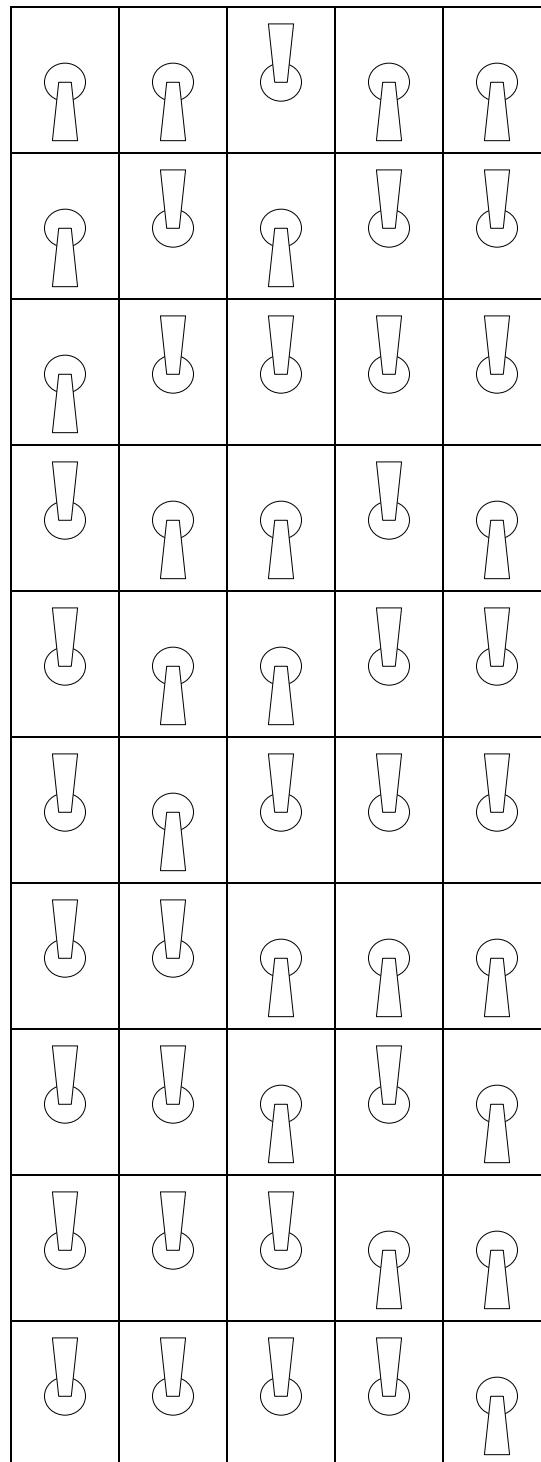
## On the Subject of Switches

*A yes or no choice isn't too bad. Unfortunately you have to make five of them and any of them could be your last.*

Switches need to be flipped to match the lit indicators either above or below them.



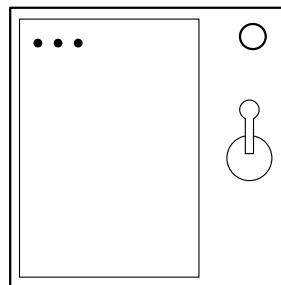
Avoid the following switch states:



## On the Subject of Crazy Talk

*Nothing. Literally nothing. Blank. Nada.*

1. Text will appear on a display.
2. Find the exact match and the action in the table below.
3. Flip the switch down when the bomb timer has the number before the forward slash in the seconds column.
4. Flip the switch back up when the bomb timer has the number after the forward slash in the seconds column.



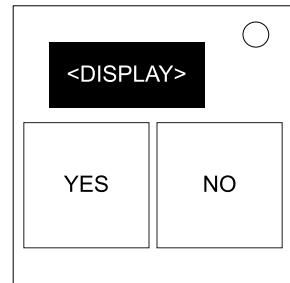
Display	Action	Display	Action
← → ← → →	5/4	NO REALLY.	5/2
1 3 2 4	3/2	← LEFT → LEFT → RIGHT	5/6
LEFT ARROW LEFT WORD RIGHT ARROW LEFT WORD RIGHT ARROW RIGHT WORD	5/8	ONE AND THEN 3 TO 4	4/7
BLANK	1/3	STOP TWICE	7/6
LITERALLY BLANK	1/5	LEFT	6/9
FOR THE LOVE OF ALL THAT IS GOOD AND HOLY PLEASE FULLSTOP FULLSTOP.	9/0	..	8/5
AN ACTUAL LEFT ARROW LITERAL PHRASE	5/3	PERIOD PERIOD	8/2
FOR THE LOVE OF - THE DISPLAY JUST CHANGED, I DIDN'T KNOW THIS MOD COULD DO THAT. DOES IT MENTION THAT IN THE MANUAL?	8/7	THERE ARE THREE WORDS NO PUNCTUATION READY? STOP DOT PERIOD	5/0
ALL WORDS ONE THREE TO FOR FOR AS IN THIS IS FOR YOU	4/0	NOVEMBER OSCAR SPACE, LIMA INDIGO TANGO ECHO ROMEO ALPHA LIMA LIMA YANKEE SPACE NOVEMBER OSCAR TANGO HOTEL INDEGO NOVEMBER GOLF	2/9
LITERALLY NOTHING	1/4	FIVE WORDS THREE WORDS THE PUNCTUATION FULLSTOP	1/9
NO, LITERALLY NOTHING	2/5	THE PHRASE: THE PUNCTUATION FULLSTOP	9/3
THE WORD LEFT	7/0	EMPTY SPACE	1/6
HOLD ON IT'S BLANK	1/9	ONE THREE TWO FOUR	3/7
SEVEN WORDS FIVE WORDS THREE WORDS THE PUNCTUATION FULLSTOP	0/5	IT'S SHOWING NOTHING	2/3
THE PHRASE THE WORD STOP TWICE	9/1	LIMA ECHO FOXTROT TANGO SPACE ALPHA ROMEO ROMEO OSCAR RISKY SPACE SIERRA YANKEE MIKE BRAVO OSCAR LIMA	1/2
THE FOLLOWING SENTENCE THE WORD NOTHING	2/7	ONE 3 2 4	3/4
ONE THREE TO FOR	3/9	STOP.	7/4
THREE WORDS THE WORD STOP	7/3	.PERIOD	8/1
DISREGARD WHAT I JUST SAID. FOUR WORDS, NO PUNCTUATION. ONE THREE 2 4.	3/1	NO REALLY STOP	5/1
1 3 2 FOR	1/0	1 3 TOO 4	2/0
DISREGARD WHAT I JUST SAID. TWO WORDS THEN TWO DIGITS. ONE THREE 2 4.	0/8	PERIOD TWICE	8/3
WE JUST BLEW UP	4/2		

Display	Action	Display	Action
1 3 TOO WITH 2 OHS FOUR	4/2	THIS ONE IS ALL ARROW SYMBOLS NO WORDS	2/8
1 3 TO 4	3/0	←	6/3
STOP DOT PERIOD	5/0	THE WORD STOP TWICE	9/4
LEFT LEFT RIGHT LEFT RIGHT RIGHT	6/7	← ← RIGHT LEFT → →	6/1
IT LITERALLY SAYS THE WORD ONE AND THEN THE NUMBERS 2 3 4	4/5	THE PUNCTUATION FULLSTOP	9/2
ONE IN LETTERS 3 2 4 IN NUMBERS	3/5	1 3 TOO WITH TWO OS 4	4/1
WAIT FORGET EVERYTHING I JUST SAID, TWO WORDS THEN TWO SYMBOLS THEN TWO WORDS: ← ← RIGHT LEFT → →	1/6	THREE WORDS THE PUNCTUATION FULLSTOP	9/9
1 THREE TWO FOUR	3/6	OK WORD FOR WORD LEFT ARROW SYMBOL TWICE THEN THE WORDS RIGHT LEFT RIGHT THEN A RIGHT ARROW SYMBOL	6/0
PERIOD	7/9	DOT DOT	8/6
.STOP	7/8	LEFT ARROW	6/8
NOVEBMER OSCAR SPACE, LIMA INDIA TANGO ECHO ROMEO ALPHA LIMA LIMA YANKEE SPACE NOVEMBER OSCAR TANGO HOTEL INDIA NOVEMBER GOLF	0/7	AFTER I SAY BEEP FIND THIS PHRASE WORD FOR WORD BEEP AN ACTUAL LEFT ARROW	7/2
LIMA ECHO FOXTROT TANGO SPACE ALPHA ROMEO ROMEO OSCAR WHISKEY SPACE SIERRA YANKEE MIKE BRAVO OSCAR LIMA	6/5	ONE THREE 2 WITH TWO OHS 4	4/3
NOTHING	1/2	LEFT ARROW SYMBOL	6/4
THERE'S NOTHING	1/8	AN ACTUAL LEFT ARROW	6/2
STOP STOP	7/5	THAT'S WHAT IT'S SHOWING	2/1
RIGHT ALL IN WORDS STARTING NOW ONE TWO THREE FOUR	4/9	THE PHRASE THE WORD NOTHING	2/6
THE PHRASE THE WORD LEFT	7/1	THE WORD ONE AND THEN THE NUMBERS 3 2 4	4/8
LEFT ARROW SYMBOL TWICE THEN THE WORDS RIGHT LEFT RIGHT THEN A RIGHT ARROW SYMBOL	5/9	ONE 3 2 FOUR	3/8
LEFT LEFT RIGHT ← RIGHT →	5/7	ONE WORD THEN PUNCTUATION. STOP STOP.	0/9
NO COMMA LITERALLY NOTHING	2/4	THE WORD BLANK	0/1
HOLD ON CRAZY TALK WHILE I DO THIS NEEDY	2/1	FULLSTOP FULLSTOP	8/4

## On the Subject of Color Flash

*It's easy to identify colors. Red, Blue, Green, etc. Turns out it's a bit harder when you display a word color in a different color though...*

- A color flash module will repeatedly flash a sequence of 8 different words representing colors in different colors.
- The possible colors are Red, Yellow, Green, Blue, Magenta and White.
- There is also a Yes button and a No button on the module.
- Only one of the Yes and No buttons need to be pressed to disarm the module, but must be pressed at the correct time according to the rules below.
- The color of the last word in the sequence determines which set of rules to follow below.
- Follow the rules down from the top-most rule, down to the bottom-most rule for the block that applies to your module.



### The color of the last word in the sequence is Red:

If Green is used as the word at least three times in the sequence, press Yes on the third time Green is used as either the word or the color of the word in the sequence.

Otherwise, if Blue is used as the color of the word exactly once, press No when the word Magenta is shown.

Otherwise, press Yes the last time White is either the word or the color of the word in the sequence.

### The color of the last word in the sequence is Yellow:

If the word Blue is shown in Green color, press Yes on the first time Green is used as the color of the word.

Otherwise, if the word White is shown in either White or Red color, press Yes on the second time in the sequence where the color of the word does not match the word itself.

Otherwise, count the number of times Magenta is used as either the word or the color of the word in the sequence (the word Magenta in Magenta color only counts as one), and press No on the color in the total's position (e.g. a total of 4 means the fourth color in sequence).

Continuation of previous table...

**The color of the last word in the sequence is Green:**

If a word occurs consecutively with different colors, press No on the fifth entry in the sequence.

If Magenta is used as the word at least three times in the sequence, press No on the first time Yellow is used as either the word or the color of the word in the sequence.

Otherwise, press Yes on any color where the color of the word matches the word itself.

**The color of the last word in the sequence is Blue:**

If the color of the word does not match the word itself three times or more in the sequence, press Yes on the first time in the sequence where the color of the word does not match the word itself.

If the word Red is shown in Yellow color, or the word Yellow is shown in White color, press No when the word White is shown in Red color.

Otherwise, press Yes the last time Green is either the word or the color of the word in the sequence.

**The color of the last word in the sequence is Magenta:**

If a color occurs consecutively with different words, press Yes on the third entry in the sequence.

If the number of times the word Yellow appears is greater than the number of times that the color of the word is Blue, press No the last time the word Yellow is in the sequence.

Otherwise, press No on the first time in the sequence where the color of the word matches the word of the seventh entry in the sequence.

**The color of the last word in the sequence is White:**

If the color of the third word matches the word of the fourth word or fifth word, press No the first time that Blue is used as the word or the color of the word in the sequence.

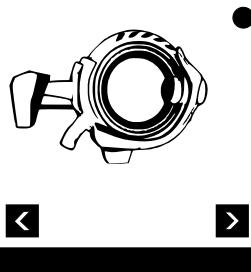
If the word Yellow is shown in Red color, press Yes on the last time Blue is used as the color of the word.

Otherwise, press No.

## On the Subject of Antichamber

A mind blowing game into a mind blowing game. What a paradox!

To solve this module, input the correct gun and antichamber room.



### 1. The Gun

- To determine the gun that you need to use count the number of (vanilla ports - modded ports) \* (batteries + holders). Keep the number in range 1-4
- To determine the room you need to go use the rules below.
- **BUT if you have the last 2 digits of the release year of the game antichamber in the serial number, Use the gun's room where its located.**

Use the number you have calculated for the gun in the table below.

1	Blue - Logic 101
2	Green - Learning To Draw
3	Yellow - I Like To Move It
4	Red - I Can Do Anything

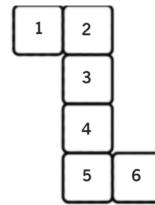
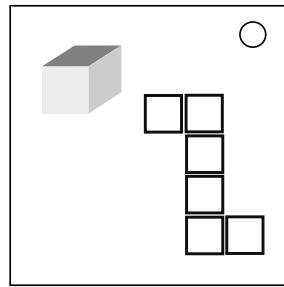
### 2. The Room

1. If there are at least 3 solved modules then the room is Climbing The Tower
2. Otherwise if the last digit of the serial number is more than 7 then the room is The Highest Point
3. Otherwise if there are solved 3D Maze, 3D Tunnels, Mouse in the Maze, Maze, Morse-A-Maze in the bomb then the room is Impossible Paths
4. Otherwise if you made a strike then the room is Failing Forward.
5. Otherwise if you have unsolved Password, Extended Password, Binary Puzzle, Symbolic Password on the bomb then the room is Connecting The Pieces.
6. Otherwise if you haven't solved a module then the room is Taking Baby Steps.
7. Otherwise if you have Double-Oh, Cursed Double-Oh then the room is Three Paths Of Sight
8. Otherwise if you have duplicated module then the room is Deja Vu
9. Otherwise the room is Window Of Opportunity

## On the Subject of The Block

*It's a Cube! Oh no, It's a Block, at least this one doesn't move!*

- To defuse, press the correct side(s) of the Block.
- Each side of the Block is represented by the buttons on the module, relative to the net below.
- The Block itself is also a button. If the module asks to press "side x", press the button relative to that location on the net.
- PLEASE NOTE: Button presses reset on a strike, and the colours **WILL** change.
- See the image below for the orientation of the Block. This does not change.
- The TOP is always side 3, and the direction of text, is relative to the net.



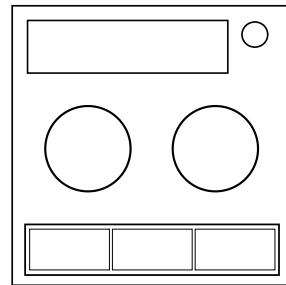
### To Disarm:

- Bob loves the Block. If his indicator is lit, there are 3 batteries in 2 holders, & an empty port plate, press the Block 5 times.
- Otherwise, if parallel > 0, serial port > 0, & side 4 = green, press the first green side in the net.
- Otherwise, if the serial contains a vowel & there is an unlit SIG indicator, press all sides in reverse numerical order.
- Otherwise, if batteries > 2 & side 1 = red, press side 5.
- Otherwise, if blue sides > red sides & yellow sides > green sides, press side 2, then side 4.
- Otherwise, if yellow sides = 0, press all sides in numerical order.
- Otherwise, if side 2 = yellow & side 3 = blue, press on the Block.
- Otherwise, if lit indicators = 0, side 2 + side 4 = blue, press the last blue side in the net.
- Otherwise, if port plates = 2 & empty port plate > 0, press all even sides in numerical order.
- Otherwise, if side 5 = blue & side 1 = green, press all odd sides in reverse numerical order.
- Otherwise, if batteries = 0 & side 3 = blue, press the first blue side in the net.
- Otherwise, if DVI-D ports > 0 & batteries = 1, press on the Block.
- Otherwise, if red sides > blue sides, press side 1, then side 4.
- Otherwise, press side 4.

## On the Subject of Divisible Numbers

*Who cares about divisibility rules, just use calculator.*

This module consists of one screen at the top showing a number, another one at the bottom showing the current stage, a Yea button and a Nay button.



To solve the module you have to press the Yea or Nay button through 3 stages. Go through the rules and apply the first one that is relevant. Press the Yea button if the number is correct according to your answer and press Nay if it's not. Getting a strike will reset the module back to stage 1 and generate new numbers. The first number means the number generated first regardless of strikes and resets.

### Rules:

- If the bomb contains 3 or more batteries, the number must be divisible by 3.
- Otherwise, if the bomb contains more lit indicators than unlit ones, the number must be divisible by 9.
- Otherwise, if the first displayed number was less than 1000, the number must be divisible by 6.
- Otherwise, if the starting time on the bomb was less than 10 minutes, the number must be divisible by 4.
- Otherwise, if the last digit of the serial number is even, the number must be divisible by 2.
- Otherwise, if there is more than 10 modules on the bomb, the number must be divisible by 5.
- Otherwise, the number must be divisible by 10.

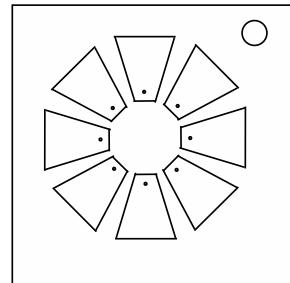
### Appendix Math: Divisibility rules

- A number is divisible by 2 if the last digit of the number is 0, 2, 4, 6, or 8.
- A number is divisible by 3 if the sum of the digits of the number is divisible by 3.
- A number is divisible by 4 if the last two digits of the number are divisible by 4.
- A number is divisible by 5 if the last digit of the number is 0 or 5.
- A number is divisible by 6 if the number is divisible by both 2 and 3.
- A number is divisible by 9 if the sum of the digits is divisible by 9.
- A number is divisible by 10 if the last digit of the number is 0.

## On the Subject of Round Keypads

I think someone tried to make this module look really cool, but failed.

- The circular keypad contains 8 symbols from the columns below.
- Find the column below that contains the most symbols from the keypad.
- If two or more columns have the most symbols, use the right-most column.
- Press all buttons that have a symbol not present on the correct column.

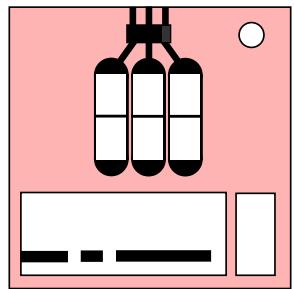


Q	Ё	©	б	Ψ	б
À	Ӯ	ӭ	Ҕ	Ҏ	Ӯ
Ӷ	҆	Ҋ	Җ	Ҏ	Ӷ
ӵ	Ҋ	҈	Җ	Ҏ	ӵ
Ғ	★	҃	Җ	Ҏ	Ӵ
ӷ	ӷ	Ӷ	Ӹ	Ҏ	Ӵ
Ҋ	Ҋ	Ҋ	Ӹ	★	ӷ
҂	Ҋ	★	Ҋ	★	ӷ

## On the Subject of Morseomatics

*Get it? Because it uses morse and maths! I'll see myself out...*

- Every letter of the alphabet is considered to have numeric value equal to its position (A=1, B=2 ... Z=26)
- Numeric values outside the 1-26 range wrap around ( $Z+1=A$ ,  $26+1=1$ )
- Three unique letters are being received on a loop, shown by the three flashing lights in the middle of the module
- To solve the module, a correct response letter must be sent in morse using the transmit button in the bottom-right
- The small switch at the top can be used to toggle the received letter lights



Transmitted morse is interpreted based on gaps between button holds.

Holding for more than double the length of the average gap is considered to be a dash, and anything shorter is considered a dot.

When transmitting, E and T are considered equal, as they are indistinguishable.

Take the 4th and 5th character of the serial number, this is your character pair.

Perform each step below in sequence, modifying your character pair progressively:

- For each indicator that has a matching letter in the received letters; add 1 to the first character of your pair if the indicator is on, or the second character if it is off
- If the sum of your character pair is a square number, add 4 to the first character; otherwise, subtract 4 from the second character
- Add the largest received letter to the first character in your pair
- If any received letters are prime, subtract them from the first character in your pair
- If any received letters are square, subtract them from the second character in your pair
- If batteries are present and any received letters are divisible by the number of batteries present, subtract those received letters from both characters in your pair

After performing all steps, perform whatever rule applies below:

- Characters are equal: Transmit the first character
- First character larger: Transmit the difference of the two characters
- Second character larger: Transmit the sum of the two characters

## How to Interpret

1. A short flash represents a dot.
2. A long flash represents a dash.
3. There is a long gap between letters.
4. There is a very long gap before the word repeats.

A ● -  
 B - - . . .  
 C - - - .  
 D - - . .  
 E ●  
 F . . - - .  
 G - - - - .  
 H . . . . .  
 I . .  
 J ● - - - -  
 K - - . - -  
 L . - - . .  
 M - - -  
 N - - .  
 O - - - -  
 P . - - - .  
 Q - - - - . -  
 R . - - . .  
 S . . . .  
 T - -

U ● . . -  
 V ● . . - -  
 W ● - - -  
 X - - . . -  
 Y - - . - -  
 Z - - - - . .

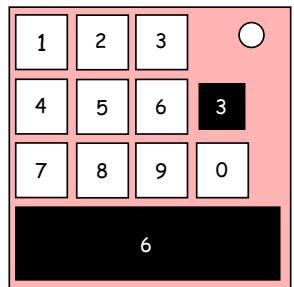
1 ● - - - - -  
 2 ● . - - - -  
 3 ● . . - - -  
 4 ● . . . - -  
 5 ● . . . . -  
 6 - - . . . .  
 7 - - - - . .  
 8 - - - - . . .  
 9 - - - - - .  
 0 - - - - - -

A	1
B	2
C	3
D	4
E	5
F	6
G	7
H	8
I	9
J	10
K	11
L	12
M	13
N	14
O	15
P	16
Q	17
R	18
S	19
T	20
U	21
V	22
W	23
X	24
Y	25
Z	26

## On the Subject of Forget Me Not

*This one likes attention, but not too much attention.*

- The main display will update on each solved module\*. The current display stage is shown on the smaller display.
- Add the displayed number to the corresponding number gained from the chart below, and record the least significant digit from the total. This is the calculated number for that stage.
- When all other modules\* have been completed, the display will turn blank.
- Press the calculated numbers on the keypad in the order they were obtained.
- If an incorrect calculated number is entered, an LED will indicate what number was displayed.



### First number:

- If the bomb has an unlit CAR indicator, the number is 2.
- Otherwise, if the bomb has more unlit indicators than lit indicators, the number is 7.
- Otherwise, if the bomb has no unlit indicators, the number is the amount of lit indicators.
- Otherwise, the number is the last digit of the serial.

### Second number:

- If the bomb has a serial port and 3 or more digits in the serial, the number is 3.
- Otherwise, if the previous calculated number was even, the number is the previous calculated number plus 1.
- Otherwise, the number is the previous calculated number minus 1.

### All other numbers:

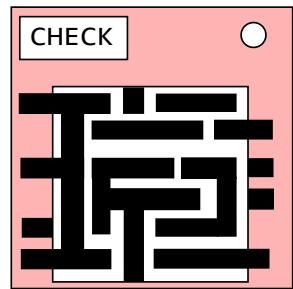
- If either of the previous two calculated numbers were 0, the number is the largest digit in the serial.
- Otherwise, if both of the previous two calculated numbers were even, the number is the smallest odd digit in the serial, or 9 if no such digit exists.
- Otherwise, the number is the most significant digit of the sum of the previous two calculated numbers.

\*Some modules are ignored by Forget Me Not modules.

## On the Subject of Plumbing

*I'd wash your hands after this one...*

- The module has 4 input pipes (left) and 4 output pipes (right). At least one input pipe and one output pipe will be active.
- The defuser must connect all active input pipes to all active output pipes, whilst taking care not to connect inactive pipes, using the 6 by 6 grid of pipes. Clicking on a pipe in the 6 by 6 grid will rotate it.
- All pipes connected to an active pipe must also correctly connect to other pipes. Any pipe with a connection not going into another pipe (or going into an inactive in/out pipe) will cause a strike upon checking the solution.
- Once the solution has been entered, press "CHECK" to verify the solution. An incorrect solution will cause a strike.
- Active input and output pipes are determined using the table below. If the pipe has more points for it than against, it is active.

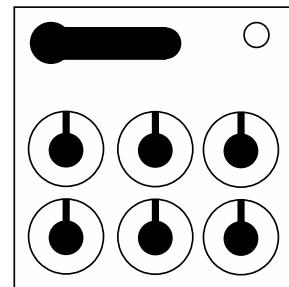


<b>Red Input</b>	<b>Yellow Input</b>
<ul style="list-style-type: none"> <li>• For: Serial contains a '1'</li> <li>• For: Exactly 1 RJ45 port</li> <li>• Against: Any duplicate ports</li> <li>• Against: Any duplicate serial characters</li> </ul>	<ul style="list-style-type: none"> <li>• For: Serial contains a '2'</li> <li>• For: One or more Stereo RCA ports</li> <li>• Against: No duplicate ports</li> <li>• Against: Serial contains a '1' or 'L'</li> </ul>
<b>Green Input</b>	<b>Blue Input</b>
<ul style="list-style-type: none"> <li>• For: Serial contains 3 or more numbers</li> <li>• For: One or more DVI-D ports</li> <li>• Against: Red Input is inactive</li> <li>• Against: Yellow Input is inactive</li> </ul>	<ul style="list-style-type: none"> <li>• Note: Always active if all other inputs are inactive</li> <li>• For: At least 4 port types</li> <li>• For: At least 4 batteries</li> <li>• Against: No ports</li> <li>• Against: No batteries</li> </ul>
<b>Red Output</b>	<b>Yellow Output</b>
<ul style="list-style-type: none"> <li>• For: One or more Serial ports</li> <li>• For: Exactly one battery</li> <li>• Against: Serial contains more than 2 numbers</li> <li>• Against: More than 2 inputs are active</li> </ul>	<ul style="list-style-type: none"> <li>• For: Any duplicate ports</li> <li>• For: Serial contains a '4' or '8'</li> <li>• Against: Serial doesn't contain a '2'</li> <li>• Against: Green Input is active</li> </ul>
<b>Green Output</b>	<b>Blue Output</b>
<ul style="list-style-type: none"> <li>• For: Exactly 3 inputs are active</li> <li>• For: Exactly 3 ports are present</li> <li>• Against: Less than 3 ports are present</li> <li>• Against: Serial contains more than 3 numbers</li> </ul>	<ul style="list-style-type: none"> <li>• Note: Always active if all other outputs are inactive</li> <li>• For: All inputs are active</li> <li>• For: Any other output is inactive</li> <li>• Against: Less than 2 batteries</li> <li>• Against: No Parallel port</li> </ul>

## On the Subject of the Safety Safe

*This safe either contains immense riches, or is empty.*

- All 6 dials must be oriented correctly to solve the module.
- Each dial has a tell, where it clicks louder. This is the starting location for each dial.
- Follow the rules below to determine how far to rotate each dial after the starting location.
- Turn the lever to check the solution. Any correct dials are indicated with a green light, and any incorrect dials are indicated with a red light.
- Starting at 0, add the number of port types on the bomb, multiplied by 7.
- Add the number of lit indicators with a matching letter in the serial, multiplied by 5.
- Add the number of unlit indicators with a matching letter in the serial.
- For the first five dials, add the number obtained from the table on the next page, using both the location of the dial and the serial number as reference.
- For the last dial, add the sum of the numbers in the last column using all characters in the serial number as a reference.
- Note: A full rotation takes 12 turns.

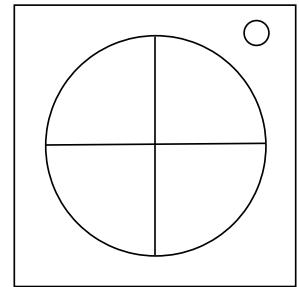


Dial					
Top			Bottom		
Left	Middle	Right	Left	Middle	Right
Serial					
First	Second	Third	Fourth	Fifth	All
A	8	3	4	8	9
B	10	1	3	7	3
C	2	1	1	5	3
D	11	6	11	11	7
E	0	5	5	8	2
F	4	2	7	7	1
G	7	4	4	2	10
H	8	3	6	6	6
I	0	11	0	0	9
J	2	11	8	0	5
K	5	2	5	1	0
L	1	9	8	11	11
M	1	7	9	5	6
N	9	5	1	4	4
O	5	9	8	10	2
P	3	10	9	1	9
Q	4	10	6	1	4
R	8	0	4	0	6
S	9	4	0	6	3
T	7	6	7	11	5
U	11	9	6	3	11
V	11	11	2	8	1
W	6	0	11	6	11
X	4	2	7	2	8
Y	10	7	10	10	8
Z	3	7	1	10	0
0	7	0	3	5	8
1	9	10	10	9	1
2	2	5	11	7	7
3	10	8	10	4	10
4	6	8	0	3	5
5	6	3	3	3	0
6	1	1	5	2	7
7	0	6	2	4	2
8	5	4	9	9	10
9	3	8	2	9	4
					9

## On the Subject of Simon States

*I'm not sure this even qualifies as Simon Says...*

- One or more colours will flash per stage.
- Each stage will also show the colours of previous stages.
- The current sequence will repeat after a short delay.
- When the sequence repeats, your input is not reset.
- If you press an incorrect button, your input is reset.
- Using the table on the next page, press the correct colour for each stage to advance.
- When a rule asks for colour priorities, use the table below to determine the correct colour.



Priority	Top-Left Button Colour			
	Red	Yellow	Green	Blue
Highest	Red	Blue	Green	Yellow
High	Blue	Yellow	Red	Green
Low	Green	Red	Yellow	Blue
Lowest	Yellow	Green	Blue	Red

**Stage 1**

- If one colour flashed, press that colour.
- Otherwise, if two colours flashed and one was blue, press the highest priority colour that flashed.
- Otherwise, if two colours flashed, press blue.
- Otherwise, if three colours flashed including red, press the lowest priority colour that flashed.
- Otherwise, if three colours flashed, press red.
- Otherwise, press the second highest priority colour.

**Stage 2**

- If only red and blue flashed, press the highest priority colour that didn't flash.
- Otherwise, if two colours flashed, press the lowest priority colour that didn't flash.
- Otherwise, if one colour flashed and it was not blue, press blue.
- Otherwise, if one colour flashed, press yellow.
- Otherwise, if all colours flashed, press the same colour as stage 1.
- Otherwise, press the colour that didn't flash.

**Stage 3**

- If three colours flashed and at least one was pressed in a previous stage, press the highest priority colour that flashed and hasn't been pressed.
- Otherwise, if three colours flashed, press the highest priority colour that flashed.
- Otherwise, if two colours flashed and both have been pressed, press the lowest priority colour that didn't flash.
- Otherwise, if two colours flashed, press the same colour as stage 1.
- Otherwise, if one colour flashed, press that colour.
- Otherwise, press the second lowest priority colour.

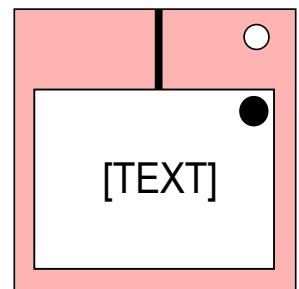
**Stage 4**

- If three unique colours have been pressed, press the fourth colour.
- Otherwise, if three colours flashed and exactly one hasn't been pressed, press that colour.
- Otherwise, if at least three colours flashed, press the lowest priority colour.
- Otherwise, if one colour flashed, press that colour.
- Otherwise, press green.

## On the Subject of The Square Button

*This may look like the button you know and love, but don't be fooled! It's a brilliantly disguised imposter foiled only by a single mistake: It's the wrong shape.*

Follow these rules in the order they are listed. Perform the first action that applies:



1. If the button is blue and the number of AA batteries is larger than the number of D batteries, hold the button and refer to "Releasing a Held Button".
2. If the button is yellow or blue and has as at least as many letters on the label as the highest number in the serial, press and immediately release.
3. If the button is yellow or blue and the label states a colour, hold the button and refer to "Releasing a Held Button".
4. If the button has no label, press and immediately release when the two seconds digits on the timer match.
5. If the button is not dark grey and the number of letters on the label is larger than the number of lit indicators, press and immediately release.
6. If there are at least 2 unlit indicators and the serial contains a vowel, press and immediately release.
7. If no other rule applies, hold the button and refer to "Releasing a Held Button".

### Releasing a Held Button

If you start holding the button down, a coloured LED will light up on the right side of the button case. Based on its colour, follow the rules below:

- Cyan: Release when the two seconds digits add up to 7.
- Orange: Release when the two seconds digits add up to 3 or 13.
- Other: Release when the two seconds digits add up to 5.

If the LED is flickering, follow these rules instead:

- Cyan: Release when the number of seconds remaining is a multiple of 7.
- Orange: Release when the number of seconds displayed is either prime or 0.
- Other: Release one second after the two seconds digits add up to a multiple of 4.

## Section 2: Needy Modules

Needy modules cannot be disarmed, but pose a recurrent hazard.

Needy modules can be identified as a module with a small 2-digit timer in the top center. Interacting with the bomb may cause them to become activated. Once activated, these needy modules must be tended to regularly before their timer expires in order to prevent a strike.

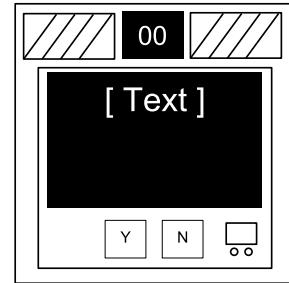
Stay observant: needy modules may reactivate at any time.

00

## On the Subject of Venting Gas

*Computer hacking is hard work! Well, it usually is. This job could probably be performed by a simple drinking bird pressing the same key over and over again.*

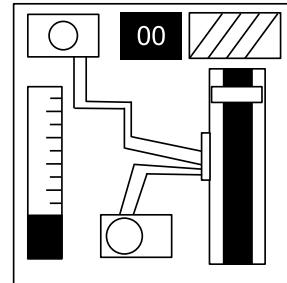
- Respond to the computer prompts by pressing "Y" for "Yes" or "N" for "No".



## On the Subject of Capacitor Discharge

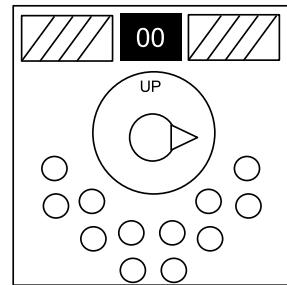
*I'm going to guess that this is just meant to occupy your attention, because otherwise this is some shoddy electronics work.*

- Discharge the capacitor before it overloads by holding down the lever.



## On the Subject of Knobs

*Needlessly complicated and endlessly needy. Imagine if such expertise were used to make something other than diabolical puzzles.*



- The knob can be turned to one of four different positions.
- The knob must be in the correct position when this module's timer hits zero.
- The correct position can be determined by the on/off configuration of the twelve LEDs.
- Knob positions are relative to the "UP" label, which may be rotated.

### LED Configurations

#### Up Position:

		X		X	X
X	X	X	X		X

X		X		X	
	X	X		X	X

#### Down Position:

	X	X			X
X	X	X	X		X

X		X		X	
	X				X

#### Left Position:

				X	
X			X	X	X

				X	
				X	X

#### Right Position:

X		X	X	X	X
X	X	X		X	

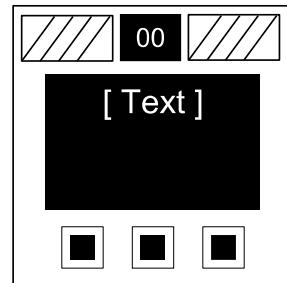
X		X	X		
X	X	X		X	

X = Lit LED

## On the Subject of Edgework

*You would think that the ports on the side of the bomb are used for something other than just for answering questions...*

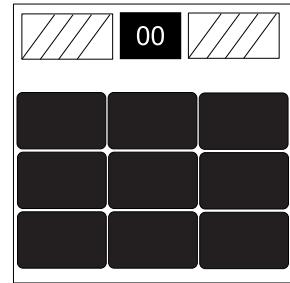
- Respond to the computer prompts by pressing the button corresponding to the answer of the question on the main display.
- There are five questions asked every time the module activates.



## On the Subject of Lights Out

*Who knew turning out all the lights was a hard task?*

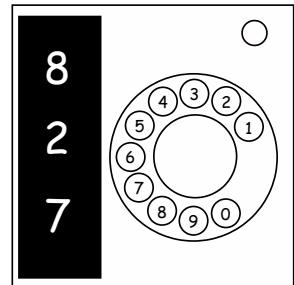
- Press the buttons to switch off all the lights.
- When pressed, a button will invert the lit state of the button itself and the lit state of the adjacent buttons in the four major cardinal directions.



## On the Subject of Rotary Phones

*Hello, this is emergency services, please hold...*

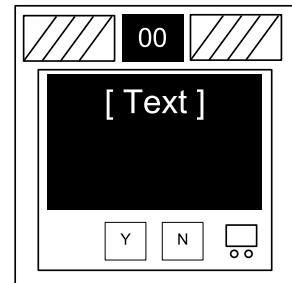
- The display will show 3 numbers, top to bottom, representing a single 3-digit number.
- Whenever the module activates, these numbers will change.
- Add the new number to the old one, take the 3 least significant digits, and enter the resulting number. This number is now your old number.
- If you gain a strike from this module, your old number is replaced with the currently displayed number.



## On the Subject of Answering Questions

*I hope you studied, it's quiz night!*

- Respond to the computer prompts by pressing "Y" for "Yes" or "N" for "No".



## Appendix A: Indicator Identification Reference

Labelled indicator lights can be found on the sides of the bomb casing.

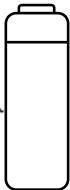


### Common Indicators

- SND
- CLR
- CAR
- IND
- FRQ
- SIG
- NSA
- MSA
- TRN
- BOB
- FRK

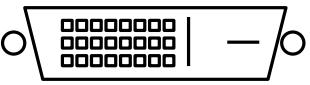
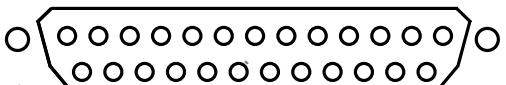
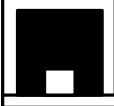
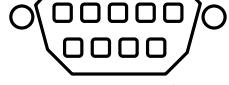
## Appendix B: Battery Identification Reference

Common battery types can be found within enclosures on the sides of the bomb casing.

Battery	Type
	AA
	D

## Appendix C: Port Identification Reference

Digital and analog ports can be found on sides of the bomb casing.

Port	Name
	DVI-D
	Parallel
	PS/2
	RJ-45
	Serial
	Stereo RCA