



SORTED A-Z  
with CHEAT SHEETS

# BOMB DEFUSAL MANUAL

Version 1

by Rexkix

## On the Subject of 3D Maze

You are in a maze of twisty passages, all alike. Exits are to the north, south, east, and west.

- The defuser starts in a random position and orientation in one of the ten mazes below.
- Locate the defuser using a 3D view of the maze walls, which also shows the symbol on the floor of the current space, and if there is a symbol in the space ahead.
- The maze map is cyclic; moving off one of the edges will take the defuser to the space on the opposite side, provided there is no wall in between the space.
- One of the walls is the goal, the rest will cause strikes if moved into.
- To defuse the module, locate the goal wall, and move through it from either side.
- Using the methods below, calculate a row (0-7), a column (0-7), and a direction; the goal wall will be the first wall from these coordinates in the given direction.



### Row:

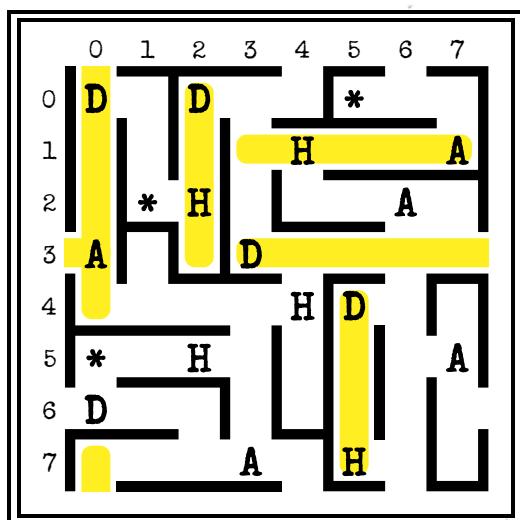
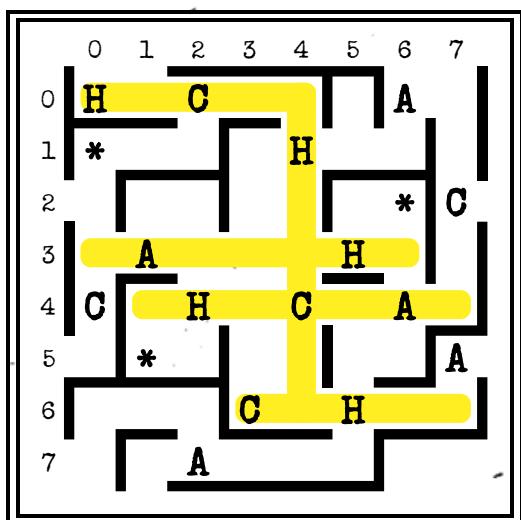
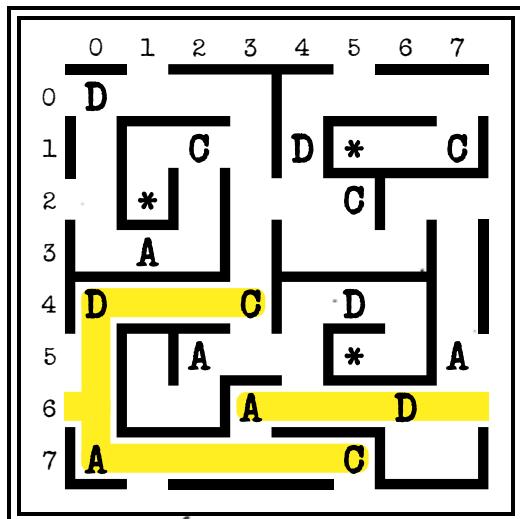
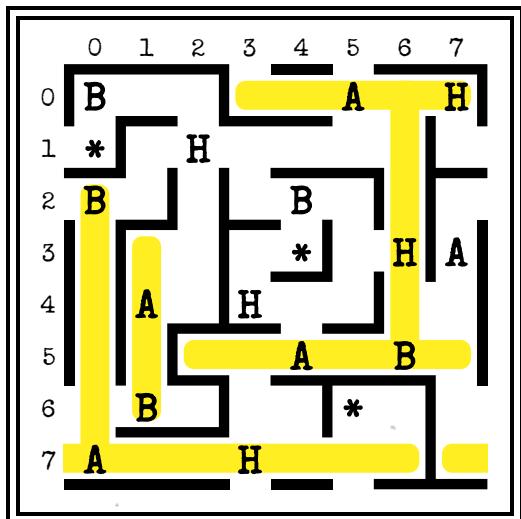
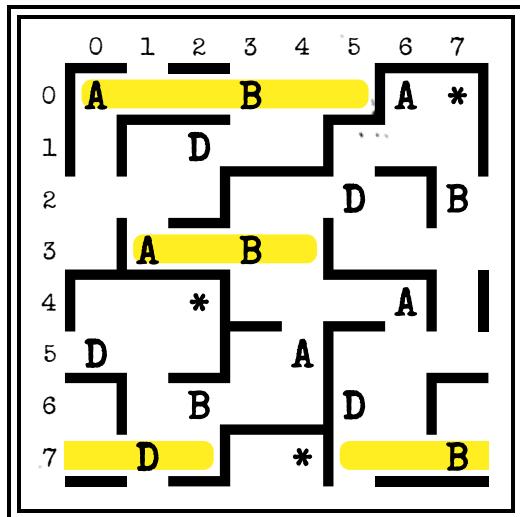
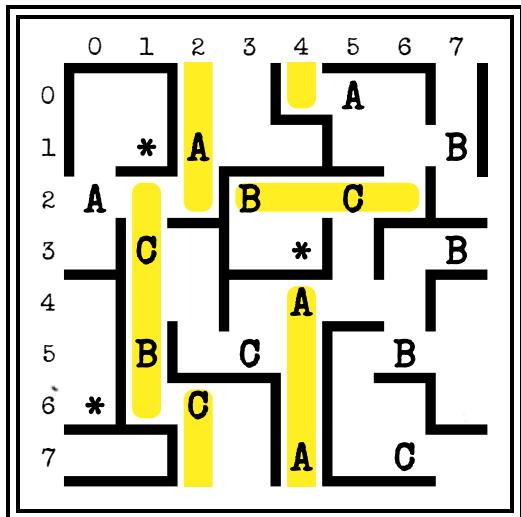
- Start with the first numeric digit in the serial number.
- Add 1 for every unlit indicator with a letter in "MAZE GAMER".
- If the row number is greater than 7, subtract 8.

### Column:

- Start with the last numeric digit in the serial number.
- Add 1 for every lit indicator with a letter in "HELP IM LOST".
- If the column number is greater than 7, subtract 8.

### Direction:

- Each maze contains three star icons marked on the map.
- On the floor in each of these locations is a letter, which maps to the direction to the goal wall: "N" becomes North, "S" becomes South, "E" becomes East, and "W" becomes West.
- Beware of letters not in these marked locations, they carry incorrect decoy instructions!





Highighted lines contain two or more letters and are the easiest way I know to find out where somebody is in the maze.

In maze CDH, the red highlighted lines have the same spacing. They can be identified by describing the wall that D faces. In one case, it's a left corner, in another case, it's a right corner, and in the third case, it's a flat wall.

Row is the FIRST digit of the serial number and add 1 per UNLIT indicator among:

CAR  
CLR  
FRK  
FRQ  
MSA  
NSA  
SIG  
TRN

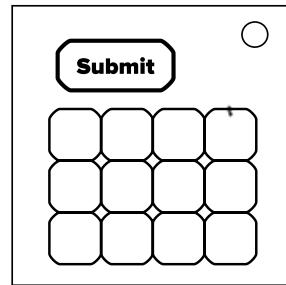
Column is the LAST digit of the serial number and add 1 per LIT indicator among:

BOB  
CLR  
IND  
MSA  
NSA  
SIG  
SND  
TRN

## On the Subject of Adjacent Letters

UP, down, left, right, UP, down, left, right...!

- Every button will have a different letter on it.
- Check the table to determine which buttons to press.
- Each letter in the “letter” column that has one of the letters in the “left/right” column directly left or right of it on the keypad must be pressed.
- Each letter in the “letter” column that has one of the letters in the “above/below” column directly above or below it on the keypad must be pressed.
- Press Submit to submit your answer. **Notes:** Multiple buttons can be pressed and they can be in **any** order.



Letter	Left/right	Above/below
A	GJMOY	HKPRW
B	IKLRT	CDFYZ
C	BHIJW	DEMTU
D	IKOPQ	CJT UW
E	ACGIJ	KSUWZ
F	CERVY	AGJPQ
G	ACFNS	HOQYZ
H	LRTUX	DKMPS
I	DLOWZ	EFNUV
J	BQT UW	EHIOS
K	AFPXY	DIORZ
L	GKPTZ	ABRVX
M	EILQT	BFPWX

Letter	Left/right	Above/below
N	PQRSV	AFGHL
O	HJLUZ	IQSTX
P	DMNOX	CFHKR
Q	CEOPV	BDIKN
R	AEGSU	BNOXY
S	ABEKQ	GMVYZ
T	GVXYZ	CJLSU
U	FMVXZ	BILNY
V	DHMNW	AEJQX
W	DFHMN	GLQRT
X	BDFKW	AJNOV
Y	BCHSU	EGMTW
Z	JNRSY	CLMPV

## On the Subject of Adventure Games

This appears to be a strange interface for an old text adventure game. All of the inventory management puzzles you have come to know and love, but none of the story.

- The three screens show the enemy you are facing, a list of statistics about your character and the world, and a list of the objects in your inventory.
- In your inventory is three weapons, plus five miscellaneous items.
- You must decide which of the items to use to prepare for the battle, then which weapon to use.
- Use the left and right arrows to scroll through statistics and inventory.
- To use an item or weapon, press "USE" when it is displayed in the inventory.
- Use the item table below to determine whether or not to use each item.
- Items can be used in any order, but all applicable items must be used before a weapon is used to fight the enemy.
- Use the weapon table and the enemy statistic table to determine which weapon to use to fight the enemy.
- For each weapon, compare the player's relevant stat (STR, DEX, or INT), plus any bonus, to the enemy's same stat.
- To defeat the enemy most efficiently, use the weapon which has the highest stat advantage (or lowest disadvantage).
- If two weapons have the same stat advantage, either can be used.



Statistic	Description
5 STR	Strength (STR) of player, used in combat
5 DEX	Dexterity (DEX) of player, used in combat
5 INT	Intelligence (INT) of player, used in combat
5' 5"	Height of player, in feet and inches
15°C	Temperature, in degrees Celsius
9.8 m/s <sup>2</sup>	Force of gravity, in meters per second squared
101 kPa	Atmospheric pressure, in kilopascals

Item	Use if...
Balloon	Gravity is less than $9.3 \text{ m/s}^2$ or pressure is greater than 110 kPa, and not fighting an Eagle.
Battery	There is at most 1 battery on the bomb, and fighting an enemy other than a Golem or a Wizard.
Bellows	If fighting a Dragon or an Eagle, use if pressure is greater than 105 kPa. If fighting a different enemy, use if pressure is less than 95 kPa.
Cheat code	Cheaters never prosper! Don't use these.
Crystal ball	INT is greater than the last digit of the serial number, and not fighting a Wizard.
Feather	DEX is greater than either STR or INT.
Hard drive	There are two or more of the same port on the bomb.
Lamp	Temperature is less than $12^\circ\text{C}$ , and not fighting a Lizard.
Moonstone	There are at least two unlit indicators on the bomb.
Potion	Always use, but note that STR, DEX, and INT may change.
Small dog	Fighting an enemy other than a Demon, a Dragon, or a Troll.
Stepladder	The player is shorter than 4', and fighting an enemy other than a Goblin or a Lizard.
Sunstone	There are at least two lit indicators on the bomb.
Symbol	Fighting a Demon or a Golem, or if the temperature is greater than $31^\circ\text{C}$ .
Ticket	The player is 4' 6" or taller, and gravity is at least $9.2 \text{ m/s}^2$ , and at most $10.4 \text{ m/s}^2$ .
Trophy	STR is greater than the first numeric digit of the serial number, or if fighting a Troll.

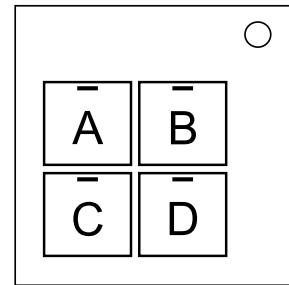
Enemy	STR	DEX	INT
Demon	50	50	50
Dragon	10	11	13
Eagle	4	7	3
Goblin	3	6	5
Golem	9	4	7
Troll	8	5	4
Lizard	4	6	3
Wizard	4	3	8

Weapon	Uses...	Bonus
Broadsword	STR	+0
Caber	STR	+2
Nasty Knife	DEX	+0
Longbow	DEX	+2
Magic orb	INT	+0
Grimoire	INT	+2

## On the Subject of Alphabet

Can you speak English? Do you know the alphabet? Then you should be okay.

1. Use the four lettered buttons to spell a word from the word bank below.
2. Spell the longest word with the letters given by pressing the lettered buttons.
3. A letter can only be used once to spell a word.
4. If multiple words can be spelled, spell the word that comes first in alphabetical order, then the next one if there are enough remaining letters.
5. If no more words can be spelled, press the remaining buttons in alphabetical order.



### Word Bank:

JQXZ	QEWS	AC	ZNY	TJL
OKBV	DFW	YKQ	LXE	GS
VSI	PQJS	VCN	JR	IRNM
OP	QYDX	HDU	PKD	ARGF

### Cheat Sheets:

4 Letters	3 Letters	2 Letters
ARGF	DFW	AC
IRNM	HDU	GS
JQXZ	LXE	JR
OKBV	PKD	OP
PQJS	QEWS	
QYDX	TJL	
	VCN	
	VSI	
	YKQ	
	ZNY	

## On the Subject of Anagrams

*Randomly punching in the letters will eventually give me another word. One of the arrangements must work, right?*

The display shows a word. Rearrange the letters to form another word. It's got to work. It just has to.

Note that the status light is on the top left of the module.



## On the Subject of Sword

*These letters are confusing. I think they're in the wrong order.*

The display shows a scrambled word. Decipher the word and punch it in to solve this module.

[Display]	<input type="radio"/>		
[Input]			
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## On the Subject of Astrology

Sometimes, the stars have it out for you. Is this bomb a good or a poor omen?

- Your fortune reading consists of the alchemical symbols of a classical element, a celestial body, and a zodiac sign.
- Calculate the Omen score of this reading:
- For each pair of symbols, look up their relationship value in the tables below, and add to the Omen score.
- For each symbol, if the english name of the symbol has a letter in common with the serial number of the bomb, add 1 to the Omen score.
- Subtract 1 from the Omen score for each symbol without a letter in common with the serial number.
- If the Omen score is positive, press GOOD OMEN anytime the number of the Omen score is a digit in the timer.
- If the Omen score is negative, press POOR OMEN anytime the number of the Omen score is a digit in the timer.
- If the Omen score is 0, press NO OMEN at any time.



	○	☽	♀	♀	♂	‡	☿	✚	Ψ	⊕
△	0	0	1	-1	0	1	-2	2	0	-1
▽	-2	0	-1	0	2	0	-2	2	0	1
▽	-1	-1	0	-1	1	2	0	2	1	-2
△	-1	2	-1	0	-2	-1	0	2	-2	2

	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♓
△	1	0	-1	0	0	2	2	0	1	0	1	0	
▽	2	2	-1	2	-1	-1	-2	1	2	0	0	2	
▽△	-2	-1	0	0	1	0	1	2	-1	-2	1	1	
△△	1	1	-2	-2	2	0	-1	1	0	0	-1	-1	

	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♓
●	-1	-1	2	0	-1	0	-1	1	0	0	-2	-2	
☽	-2	0	1	0	2	0	-1	1	2	0	1	0	
♀	-2	-2	-1	-1	1	-1	0	-2	0	0	-1	1	
♀	-2	2	-2	0	0	1	-1	0	2	-2	-1	1	
♂	-2	0	-1	-2	-2	-2	-1	1	1	1	0	-1	
≠	-1	-2	1	-1	0	0	0	1	0	-1	2	0	
ℏ	-1	-1	0	0	1	1	0	0	0	0	-1	-1	
♓	-1	2	0	0	1	-2	1	0	2	-1	1	0	
ψ	1	0	2	1	-1	1	1	1	0	-2	2	0	
♀	-1	0	0	-1	-2	1	2	1	1	0	0	-1	

<u>Symbol</u>	<u>Element</u>	<u>Symbol</u>	<u>Planet</u>	<u>Symbol</u>	<u>Planet</u>
	Fire		Sun		Jupiter
	Water		Moon		Saturn
	Earth		Mercury		Uranus
	Air		Venus		Neptune
			Mars		Pluto

<u>Symbol</u>	<u>Zodiac</u>	<u>Symbol</u>	<u>Zodiac</u>	<u>Symbol</u>	<u>Zodiac</u>
	Aries		Leo		Sagittarius
	Taurus		Virgo		Capricorn
	Gemini		Libra		Aquarius
	Cancer		Scorpio		Pisces

## On the Subject of Bitmaps

*Over 18 quintillion combinations, only some of them actually matter.*

- A combination of 64 pixels will appear on the grid.
- Each pixel can be black or white.
- There are 4 buttons underneath the grid labeled 1, 2, 3, and 4.
- Figure out which button to press by follow the steps below.



1. If the majority of the pixels on the top half of the grid are black, press '2'.
2. Otherwise, if the majority of the pixels on the **entire** grid are white, press '4'.
3. Otherwise, if the majority of the pixels on the bottom half of the grid are white, press '1'.
4. Otherwise, if there are 16 or fewer white pixels on the right side of the grid, press '2'.
5. Otherwise, if the majority of the pixels on the top left of the grid are white, press '3'.
6. Otherwise, if there are 17 or more black pixels on the left side of the grid, press '1'.
7. Otherwise, if the serial number contains a vowel, press '3'.
8. Otherwise, if there are 3 or more batteries on the bomb, press '4'.
9. Otherwise, press '2'.

## On the Subject of the Blind Alley

What? Where?

The module appears blank, but has eight touch-sensitive regions laid out as in the following diagram. Touch the regions that have the most conditions met in any order.



<ul style="list-style-type: none"> <li>• There is an unlit BOB indicator.</li> <li>• There is a lit CAR indicator.</li> <li>• There is a lit IND indicator.</li> <li>• There is an even number of battery holders.</li> </ul>	<ul style="list-style-type: none"> <li>• There is an unlit CAR indicator.</li> <li>• There is an unlit NSA indicator.</li> <li>• There is a lit FRK indicator.</li> <li>• There is an RJ-45 port.</li> </ul>	
<ul style="list-style-type: none"> <li>• There is an unlit FRQ indicator.</li> <li>• There is an unlit IND indicator.</li> <li>• There is an unlit TRN indicator.</li> <li>• There is a DVI-D port.</li> </ul>	<ul style="list-style-type: none"> <li>• There is an unlit SIG indicator.</li> <li>• There is an unlit SND indicator.</li> <li>• There is a lit NSA indicator.</li> <li>• There is an even number of batteries.</li> </ul>	<ul style="list-style-type: none"> <li>• There is a lit BOB indicator.</li> <li>• There is a lit CLR indicator.</li> <li>• There is a PS/2 port.</li> <li>• There is a serial port.</li> </ul>
<ul style="list-style-type: none"> <li>• There is a lit FRQ indicator.</li> <li>• There is a lit SIG indicator.</li> <li>• There is a lit TRN indicator.</li> <li>• There is an even digit in the serial number.</li> </ul>	<ul style="list-style-type: none"> <li>• There is an unlit FRK indicator.</li> <li>• There is a lit MSA indicator.</li> <li>• There is a parallel port.</li> <li>• There is a vowel in the serial number.</li> </ul>	<ul style="list-style-type: none"> <li>• There is an unlit CLR indicator.</li> <li>• There is an unlit MSA indicator.</li> <li>• There is a lit SND indicator.</li> <li>• There is a stereo RCA port.</li> </ul>

# On the Subject of Beating Blind Alley

*The real Forget Me Not.*

Note: For use by those familiar with the original manual. Contact Nanthelas on Discord with any corrections.

## Widget Numbers

	Unlit	Lit
BOB	1	6
CAR	2	1
CLR	9	6
FRK	8	2
FRQ	4	7
IND	4	1
MSA	9	8
NSA	2	5
SIG	5	7
SND	5	9
TRN	4	7

DVI-D	4
Parallel	8
PS-2	6
Stereo RCA	9
RJ-45	2
Serial	6

Even Batteries	5
Even Holders	1
Even in Serial	7
Vowel in Serial	8

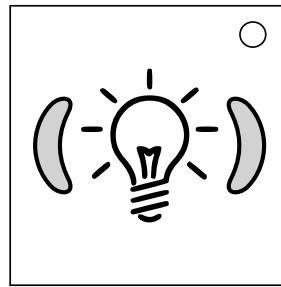
## Number to Table Map

1	2	
4	5	6
7	8	9

## 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 and then continue.

Begin at Step 1.

**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.

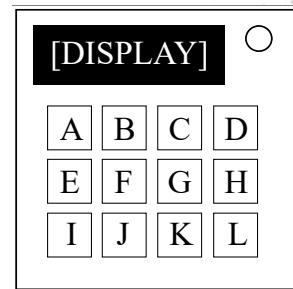
**Step 6** • If the bulb went off when you pressed **I**, press the button that you pressed in Step 1, then screw the bulb back in.  
• Otherwise, press the button that you pressed in Step 2 or 3, then screw the bulb back in.

- 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 Caesar Cipher

Communication was dangerous back in the days. Can you figure out what the original message was?

Decipher the characters on the display with the help of Caesar's tactics. There's no delete button, so press those buttons carefully!



For example: if the offset is -2, **D** becomes **B** and **L** becomes **J**. The table below can be used to calculate the required offset. If the offset column contains an = sign, that value should be used, regardless of other rules that apply.

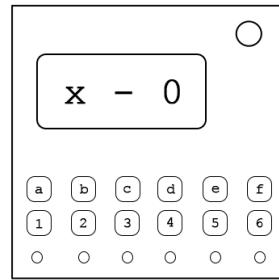
Condition	Offset
Serial number contains a vowel	-1
Number of batteries	+1 per battery
The last digit of the serial number is even	+1
Indicator with label CAR is present	+1
Parallel port and lit indicator with label NSA is present	=0

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

## On the Subject of Chess

*Under pressure, chess can feel more like a game of battleships.*

This module is based on a **6x6 chessboard** (referenced on the following page) and all figures follow the standard FIDE movement rules.



The chess module will present with a display and two rows of six buttons each.

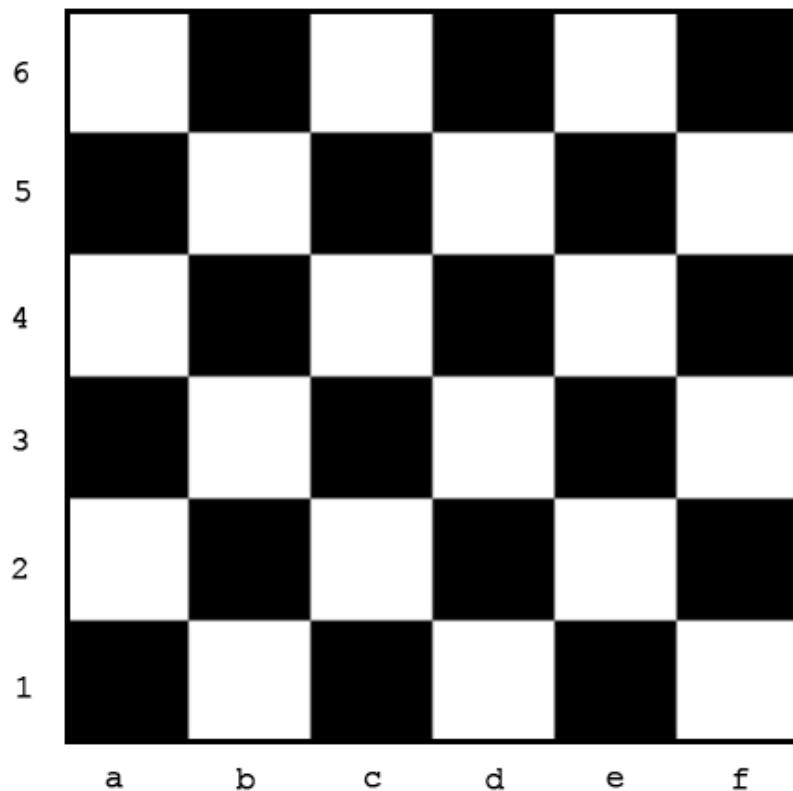
- There are six unique coordinates that represent six positions on the chessboard.
- Use the numbered keys in the bottom row to browse through the different coordinates. A green LED below the button will indicate the position of the currently selected coordinate.
- Using the reference table below, each position can be assigned a certain chess figure.
- The chess figures will cover 35 of the 36 possible fields with their combined movesets.
- All chess figures are colorless but can block each other's movement.
- Find the one field that isn't covered by any of the chess figures and enter the coordinate to defuse the module.
- To enter the coordinate, press the letter first, then the number. The LEDs will turn red to confirm the input of a solution.

Use this table as reference to determine the correct figure for each position:

<p><b>Position #1: Monarchy vs Theocracy</b></p> <p>Occupied by a king if Position #5 is occupied by a queen. Otherwise, the field is occupied by a bishop.</p>
<p><b>Position #2: Commander of the Army</b></p> <p>Occupied by a rook if the last digit of the serial number is odd. Otherwise, the field is occupied by a knight.</p>
<p><b>Position #3: A Matter of Regents</b></p> <p>Occupied by a queen if there are less than two rooks on the board. Otherwise, the field is occupied by a king.</p>
<p><b>Position #4: The Iron Tower</b></p> <p>Always occupied by a rook.</p> <p><i>"Neither of two evils must thy strike claim; Instead smite the darkness between the same."</i></p>
<p><b>Position #5: Conflict between Good and Evil</b></p> <p>Occupied by a queen if the field is white. Otherwise, the field is occupied by a rook.</p>
<p><b>Position #6: The Scepter, the Sword and the Crosier</b></p> <p>Occupied by a queen if there are no other queens on the board. Otherwise, occupied by a knight if there are no other knights on the board. Otherwise, the field is occupied by a bishop.</p>

**Chess Board Reference**

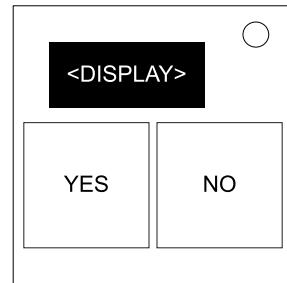
Use the following graphic as a reference for the chess board layout



## 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 Colored Squares

*There is order in chaos. A pattern in the colors. Find it, and all will become clear.*

- Press all squares in the correct group to progress the module.
- Pressing a square will cause it to light up white. Light all squares to disarm the module.
- Press the color group containing the fewest squares to begin, then use the table to determine the next group to press in each stage.
- “Group” refers to all squares of a particular color, or all unlit squares in the topmost row or leftmost column containing unlit squares.
- Pressing an incorrect square will result in a strike and reset the module.
- Lit squares will remain lit for the duration of the module, but unlit squares may change color in each stage.

Color	Color	Color	Color
Color	Color	Color	Color
Color	Color	Color	Color
Color	Color	Color	Color

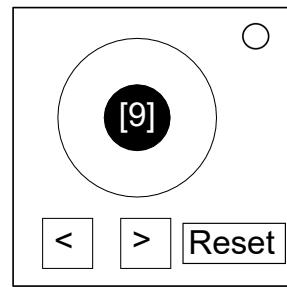
Currently Lit Squares	Previous Group of Squares Pressed						
	Red	Blue	Green	Yellow	Magenta	Row	Column
1	Blue	Column	Red	Yellow	Row	Green	Magenta
2	Row	Green	Blue	Magenta	Red	Column	Yellow
3	Yellow	Magenta	Green	Row	Blue	Red	Column
4	Blue	Green	Yellow	Column	Red	Row	Magenta
5	Yellow	Row	Blue	Magenta	Column	Red	Green
6	Magenta	Red	Yellow	Green	Column	Blue	Row
7	Green	Row	Column	Blue	Magenta	Yellow	Red
8	Magenta	Red	Green	Blue	Yellow	Column	Row
9	Column	Yellow	Red	Green	Row	Magenta	Blue
10	Green	Column	Row	Red	Magenta	Blue	Yellow
11	Red	Yellow	Row	Column	Green	Magenta	Blue
12	Column	Blue	Magenta	Red	Yellow	Row	Green
13	Row	Magenta	Column	Yellow	Blue	Green	Red
14	Red	Blue	Magenta	Row	Green	Yellow	Column
15	Column	Row	Column	Row	Column	Row	Column

## On the Subject of Combination Locks

*This looks like a combination lock. I thought I was disarming this bomb, not unlocking it.*

*See Appendix B of original manual for battery identification reference.*

*See Appendix Two Factor for two factor identification reference.*



Like a typical combination lock, this requires 3 numbers to unlock. Turn the dial to the right to the first number. Then turn it to the left for the second number. Finally, turn it to the right for the last number. That will unlock it!

If sequential numbers in the code are the same, perform a full revolution back to the same number.

### How to decode the combination:

Each number ranges from 0-19. Refer to the table to determine each number. Be careful if there are two factor codes present because they change periodically!

#### First number:

1. Add the least significant digit of each two factor code together.
2. If there are no two factor codes, use the last digit of the serial number plus the number of solved modules.
3. Add the number of batteries.
4. Subtract 20 if the result is over 19.

#### Second number:

1. Add the most significant digit of each two factor code together.
2. If there are no two factor codes, use the number of modules on the bomb (including needy modules).
3. Add the number of solved modules.
4. Subtract 20 if the result is over 19.

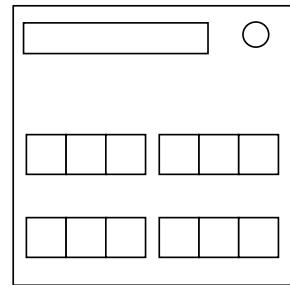
#### Third number:

1. Add the first two numbers together.
2. Subtract 20 if the result is over 19.

## 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 just above 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.

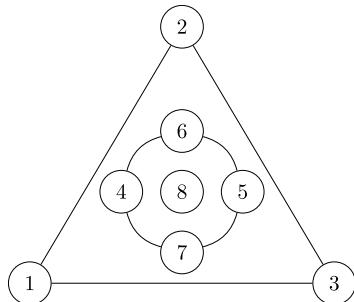
Otherwise, if there is **no "5"** on the module, look at the **fifth** character of the serial number.

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

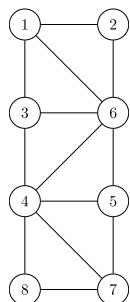
Otherwise, if there are **more than 6 batteries or no batteries** on the bomb, look at the **last** character of the serial number.

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.

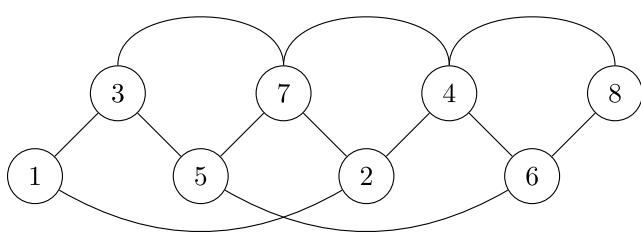
If your digit is contained within **7HPJ** use this chart:



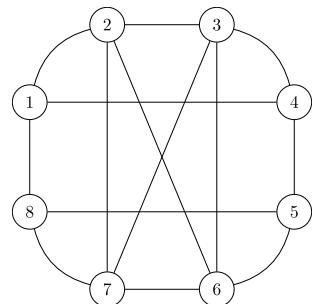
If your digit is contained within **SLIM** use this chart:



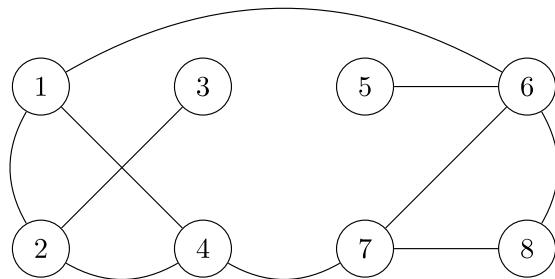
If your digit is contained within **20DGT** use this chart:



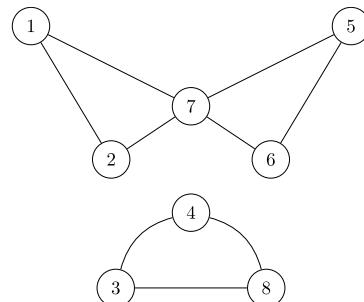
If your digit is contained within **9QVN** use this chart:



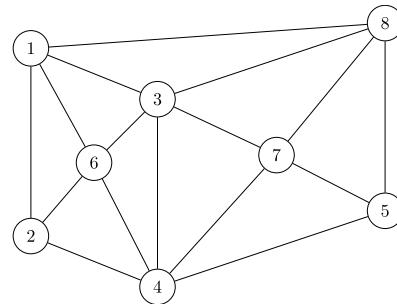
If your digit is contained within **34XYZ** use this chart:



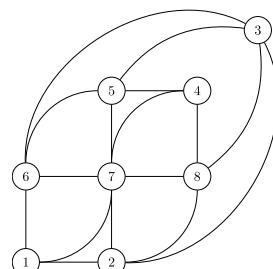
If your digit is contained within **15BRO** use this chart:



If your digit is contained within **8CAKE** use this chart:



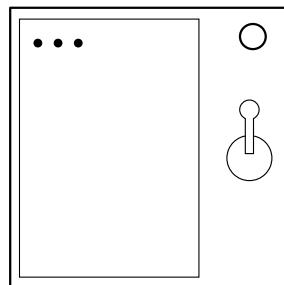
If your digit is contained within **6WUF** use this chart:



## 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 Cryptography

WLMY ETGXFD EQCD ED PQKW WT CMFF EZYDFB.

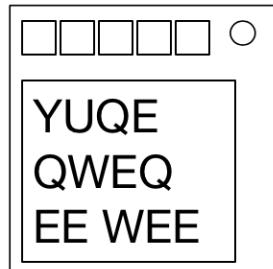
SEE APPENDIX CD43 FOR AN EXCERPT OF "A CHRISTMAS CAROL".

SEE APPENDIX CD44 FOR FREQUENT LETTERS AND WORDS.

This module will display ciphertext which contains a sentence from Charles Dickens' "A Christmas Carol" (aka the plaintext). The plaintext has been encrypted via a substitution cypher, meaning each letter in the alphabet is substituted for a different letter.

- The letter E will always mean the letter E.
- Apart from the letter E, no letter can substitute itself.
- All punctuation has been removed from the ciphertext.
- Above the display are five keys each with a letter that is found in the plaintext.
- Once the ciphertext is decrypted, press each key only once, in order that they appear in the plaintext.
- Entering the incorrect sequence will gain a strike, try the sequence again from the beginning.

NOTE: The meaning of the word colors is currently unknown, however you can safely ignore them.



APPENDIX CD43

Numbers are lengths  
of the sentences.

Excerpt from Charles Dickens' "A Christmas Carol".

Scrooge knew he was dead? Of course he did. How could it be otherwise? Scrooge and he were partners for I don't know how many years. Scrooge was his sole executor, his sole administrator, his sole assign, his sole residuary legatee, his sole friend, and sole mourner. And even Scrooge was not so dreadfully cut up by the sad event, but that he was an excellent man of business on the very day of the funeral, and solemnised it with an undoubted bargain. The mention of Marley's funeral brings me back to the point I started from. There is no doubt that Marley was dead. This must be distinctly understood, or nothing wonderful can come of the story I am going to relate. If we were not perfectly convinced that Hamlet's Father died before the play began, there would be nothing more remarkable in his taking a stroll at night, in an easterly wind, upon his own ramparts, than there would be in any other middle-aged gentleman rashly turning out after dark in a breezy spot -- say Saint Paul's Churchyard for instance -- literally to astonish his son's weak mind.

Scrooge never painted out Old Marley's name. There it stood, years afterwards, above the warehouse door: Scrooge and Marley. The firm was known as Scrooge and Marley. Sometimes people new to the business called Scrooge Scrooge, and sometimes Marley, but he answered to both names. It was all the same to him.

Oh! But he was a tight-fisted hand at the grind-stone, Scrooge! A squeezing, wrenching, grasping, scraping, clutching, covetous, old sinner! Hard and sharp as flint, from which no steel had ever struck out generous fire; secret, and self-contained, and solitary as an oyster. The cold within him froze his old features, nipped his pointed nose, shrivelled his cheek, stiffened his gait; made his eyes red, his thin lips blue and spoke out shrewdly in his grating voice. A frosty rime was on his head, and on his eyebrows, and his wiry chin. He carried his own low temperature always about with him; he iced his office in the dogdays; and didn't thaw it one degree at Christmas.

External heat and cold had little influence on Scrooge. No warmth could warm, no wintry weather chill him. No wind that blew was bitterer than he, no falling snow was more intent upon its purpose, no pelting rain less open to entreaty. Foul weather didn't know where to have him. The heaviest rain, and snow, and hail, and sleet, could boast of the advantage over him in only one respect. They often 'came down' handsomely, and Scrooge never did.

Nobody ever stopped him in the street to say, with gladsome looks, 'My dear Scrooge, how are you? When will you come to see me?' No beggars implored him to bestow a trifle, no children asked him what it was o'clock, no man or woman ever once in all his life inquired the way to such and such a place, of Scrooge. Even the blind men's dogs appeared to know him; and when they saw him coming on, would tug their owners into doorways and up courts; and then would wag their tails as though they said, 'No eye at all is better than an evil eye, dark master!'

But what did Scrooge care! It was the very thing he liked. To edge his way along the crowded paths of life, warning all human sympathy to keep its distance, was what the knowing ones call 'nuts' to Scrooge.

# On the Subject of Cracking Cryptography

*There is no doubt that The Defuser was dead.*

Note: For use by those familiar with the original manual. Contact Nanthelas on Discord with any corrections.

## Sentences

Words	Letters	Text
4	2 6 2 3	Of course he did.
5	7 4 2 3	Scrooge knew he was dead?
5	3 5 2 2	How could it be otherwise?
5	3 4 3 7	But what did Scrooge care!
7	7 5 7 3	Scrooge never painted out Old Marley's name.
7	2 3 3 3	It was all the same to him.
7	2 4 3 6	he iced his coffee in the dogdays;
7	4 4 3 4	When will you come to see me?"
7	2 3 3 4	It was the very thing he liked.
8	5 2 2 5	There is no doubt that Marley was dead.
8	3 4 3 5	The firm was known as Scrooge and Marley.
8	6 3 13 3	secret, and self-contained, and solitary as an oyster.
8	3 5 4 2	and didn't thaw it one degree at Christmas.
8	4 7 5 4	Foul weather didn't know where to have him.
9	1 9 9 8	A squeezing, wrenching, grasping, scraping, clutching, covetous, old sinner!
9	8 4 3 4	External heat and cold had little influence on Scrooge.
9	2 6 5 4	No warmth could warm, no wintry weather chill him.
9	4 5 4 4	They often "came down" handsomely, and Scrooge never did.
9	4 3 5 4	Even the blind men's dogs appeared to know him;
10	3 2 3 1	But he was a tight-fisted hand at the grindstone, Scrooge!
10	2 7 3 3	He carried his own low temperature always about with him;
12	5 2 5 5	There it stood, years afterwards, above the warehouse door: Scrooge and Marley.

Words	Letters	Text
12	7 3 2 4	Scrooge and he were partners for I don't now how many years.
14	3 7 2 7	The mention of Marley's funeral brings me back to the point I started from.
15	4 3 5 2	Hard and sharp as flint, from which no steel had ever struck out generous fire;
15	1 6 4 3	A frosty rime was on his head, and on his eyebrows, and his wiry chin.
16	4 3 4 3	made his eyes red, his thin lips blue and spoke out shrewdly in his grating voice.
16	3 4 4 3	and when they saw him coming on, would tug their owners into doorways and up courts;
18	4 4 2 10	This must be distinctly understood, or nothing wonderful can come of the story I am going to relate.
18	9 6 3 2	Sometimes people new to the business called Scrooge Scrooge, and sometimes Marley, but he answered to both names.
18	3 4 6 3	The cold within him froze his old features, nipped his pointed nose, shrivelled his cheek, stiffened his gait;
18	6 4 7 3	Nobody ever stopped him in the street to say, with gladsome looks, "My dear Scrooge, how are you?
20	3 8 4 3	The heaviest rain, and snow, and hail, and sleet, could boast of the advantage over him in only one respect.
21	7 3 3 4	Scrooge was his sole executor, his sole administrator, his sole assign, his sole residuary legatee, his sole friend, and sole mourner.
22	3 4 5 3	and then would wag their tails as though they said, "No eye at all is better than an evil eye, dark master!"
24	2 4 4 4	No wind that blew was bitterer than he, no falling snow was more intent upon its purpose, no pelting rain less open to entreaty.
27	2 4 3 3	To edge his way along the crowded paths of life, warning all human sympathy to keep its distance, was what the knowing ones call "nuts" to Scrooge.

**APPENDIX CD44**Word and Letter Frequency in Charles Dickens' "A Christmas Carol".Frequent 2 letter words

- 16x TO
- 11x NO
- 10x HE
- 9x IN
- 8x OF
- 7x IT

Frequent 3 letter words

1. 23x AND
2. 22x THE
3. 22x HIS
4. 14x WAS
5. 11x HIM
6. 4x OUT

Frequent 4 letter words

1. 6x SOLE
2. 4x THAT

Frequent 5 letter words

1. 4x THERE
2. 4x WOULD

Frequent 6 letter words

1. 4x MARLEY

Frequent 7 letter words

1. 12x SCROOGE

Frequent 8 letter words

1. 2x BUSINESS

Frequent 9 letter words

1. 2x SOMETIMES

## On the Subject of Emoji Math



*Math is easy. But is it easy when the numbers are in another language? Let's find out.*

Decipher the characters on the display into numbers and solve the answer to the question. Enter the answer with the keypad and press '=' to submit it. Use '-' to toggle the negative sign for negative answers. There's no delete button so press those buttons carefully!

For example: =(+=( translates to 1+1

The answer to enter is 2.

Character	Number
:)	0
=()	1
(:	2
)=	3
:()	4
):	5
=)	6
(=	7
:	8
:	9

## On the Subject of English Tests

You've lived all your life writing however you wanted without giving a second thought to who would be reading what you misspelled. But now, your life depends on your grammar and orthography, and this bomb is very nitpicky. You should of paid more attention in you're English class.

...Oh, carp.

See Appendix: Grammar for more information.

- An English sentence with one *italic* word or phrase will be displayed on the large LCD display.
- Your goal is to select the correct word that fills in the blank.
- If multiple words appear to complete the sentence correctly, remember that this module is a pedantic prescriptivist!
- There are three rounds. Correctly complete all the sentences to disarm the module.
- If a mistake is made during the course of the test, the question number will reset to 1.

Question 1/3

We need to *diffuse* this bomb quickly.

diffuse defuse



## Appendix: Grammar

for use with the English Test module

This appendix contains a brief overview of some grammatical distinctions used in the English Test module and Needy English Test module.

The **subject** is what is doing the action, and the **object** is what is receiving the action. e.g. In “I buy milk.” I is the subject and milk is the object.

<b>their:</b> belonging to them; <b>there:</b> that place; <b>they're:</b> they are
<b>your:</b> belonging to you; <b>you're:</b> you are
<b>I, he, she, we, they:</b> used in subjects; <b>me, him, her, us, them:</b> used in objects
<b>less:</b> used with uncountable nouns; <b>fewer:</b> used with countable nouns
<b>who:</b> used in subjects; <b>whom:</b> used in objects
<b>defiantly:</b> rebelliously; <b>definitely:</b> without doubt
<b>lead:</b> the metal or the present tense; <b>led:</b> the past tense and past participle
<b>cite:</b> declare a quoted source; <b>site:</b> location; <b>sight:</b> a view or vision
When you don't <b>lay</b> something else down, you <b>lie</b> down. The past tense of <u>lay</u> is <b>laid</b> . Confusingly, the past tense of <u>lie</u> is <b>lay</b> !
<b>Literally</b> means <u>word for word</u> . If you had “literally died” watching a video, your family and friends would be crying at your funeral about now.
If you write “should <b>of</b> ”, “could <b>of</b> ”, “would <b>of</b> ”, or “might <b>of</b> ”, no educated gentleman will take you seriously. Remember, “I <u>do</u> ” is to “I <u>have done</u> ” as “I could <u>do</u> ” is to “I could <u>have done</u> ”. (Exceptions apply, but very <u>very rarely</u> !)
<b>its:</b> belonging to it; <b>it's:</b> it is
<b>capital:</b> main city in a territory, money you put up to borrow something, or THIS KIND OF LETTER; <b>capitol:</b> big building, usually in a <u>capital</u>
<b>affect:</b> usually a verb, but noun when it means “display of emotion”; <b>effect:</b> almost always a noun; <b>impact:</b> physical force
<b>i.e.:</b> short for Latin <i>id est</i> , or “that is”; <b>e.g.:</b> short for Latin <i>exempli grātiā</i> , or “for example”
<b>peak:</b> summit; <b>peek:</b> sneak a look; <b>pique:</b> excite (usually interest)
<b>allot:</b> partition; <b>a lot:</b> very much; <b>alot:</b> (never correct)
<b>lose:</b> opposite of gain; <b>loose:</b> opposite of tight
<b>than:</b> (used to compare two things); <b>then:</b> at the time, or right after that
<b>complement:</b> when two parts complete each other; <b>compliment:</b> You look good today!
<b>farther:</b> physical distance; <b>further:</b> figurative distance
<b>number:</b> used for countable nouns; <b>amount:</b> used for uncountable nouns

## Appendix: Grammar (Cont'd)

<b>to:</b> used in infinitives or destination; <b>too:</b> as well, or overly; <b>two:</b> 2
<b>accept:</b> This is fine; <b>except:</b> One of these things is not like the others
<b>threw:</b> past tense of "throw"; <b>through:</b> in at one side/end and out at the other
<b>defuse:</b> stop a bomb; <b>diffuse:</b> light softening out. Use "defuse" for tension.
<b>statue:</b> monument; <b>stature:</b> body height; <b>statute:</b> code of law
<b>stationary:</b> completely still; <b>stationery:</b> writing utensils
<b>by:</b> beside, from the mind of, etc.; <b>buy:</b> trade money for goods; <b>bye:</b> see you later
<b>breath:</b> the noun; <b>breathe:</b> the verb
<b>drink:</b> present tense; <b>drank:</b> past tense; <b>drunk:</b> past participle and adjective
<b>discreet:</b> <u>secret</u> or carefully subtle; <b>discrete:</b> separate
<b>seas:</b> plural of sea; <b>sees:</b> a form of "to see"; <b>seize:</b> to grab or take by force; <b>C's:</b> more than one C
<b>weather:</b> condition of the outside air; <b>whether:</b> if it is or if it isn't
<b>raise:</b> to make something go up; <b>rays:</b> narrow beams of light; <b>raze:</b> get rid of hair with a razor, or similarly destroy a wide area
<b>wander:</b> frolic; <b>wonder:</b> ponder
<b>die:</b> stop living, or a small cube for randomness; <b>dice:</b> more than one die
<b>meat:</b> flesh; <b>meet:</b> to see someone else; <b>mete:</b> to deal out something unpleasant
<b>palate:</b> roof of your mouth; <b>palette:</b> board to mix paint on, or a combination of colors; <b>pallet:</b> plates that cargo gets placed on
In this module, <b>racket:</b> a loud noise; <b>racquet:</b> a netted stick or paddle with which to hit a ball. (Especially in US English, racket can be used for both senses.)
<b>perfect:</b> 100% good or correct; <b>prefect:</b> person in a position of power, like an official or a heir

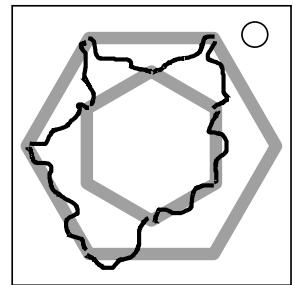
**Other pairs/sets of words include:** ad/add, aloud/allowed, altar/alter, arc/ark, baited/bated, base/bass, blew/blue, brake/break, carat/caret/carrot/karat, ceiling/sealing, cent/scent/sent, cereal/serial, choral/coral/corral, coarse/course, creak/creek, dear/deer, discussed/disgust, elicit/illicit, everyday/every day, faint/feint, faze/phase, find/fined, flair/flare, flea/flee, gait/gate, idle/idol/idyll, lighting/lightning/lightening, loan/lone/lend, oar/or/ore, pail/pale, pair/pare/pear, poor/pore/pour, praise/prays/preys, precedence/precedents/presidents, right/rite/wright/write, road/rode/rowed, ring/wring, role/roll, seam/seem, stairs/stares, steal/steel, straight/strait, though/thought/through/thorough, vain/vane/vein, vary/very, wait/weight, and weak/week.

For lack of space, the differences for these words have been omitted, but they should be fairly common knowledge to most English speakers.

## On the Subject of Follow the Leader

*Child's play. Just follow the leader. Only if you fail to follow, the penalty is somewhat more explosive.*

This module contains 8-12 wires connecting numerically labeled plugs in a looping sequence. Each wire leads from one plug to the next plug that contains a wire in ascending numerical order. A wire leading from plug 1 is considered to be "wire 1".



Progress through the module by first determining the starting wire, then checking whether to cut each wire in the sequence. Each wire will need to be either cut or left uncut based on the state of the previous wire(s) in the sequence.

### Determine Start Position

Follow the first rule below that applies:

1. If an RJ-45 port is present and there is a wire leading from plug 4 directly to plug 5, begin at that wire.
2. Otherwise, if there is a wire that begins at a plug matching the number of batteries on the bomb, begin with that wire.
3. Otherwise, if there is a wire that begins at a plug matching the first numeral of the serial number, begin at that wire.
4. Otherwise, if there is a lit indicator with the label CLR, disregard all further instructions and cut all wires present on this module in descending numerical order.
5. If none of the above apply, the start position is the plug containing a wire earliest in numerical order.

## Cutting Wires

- Always cut the wire at the starting plug. Then progress to the next wire.
- From this position, cut the wires as directed by the steps in the following table. The starting step corresponds to the first letter in the serial number. If the serial number contains no letters, begin at step A.
- When progressing to the next wire, also progress to the next step alphabetically in the table to determine whether to cut the wire.
- "Previous wire(s)" may refer to wires beyond the original starting position in the sequence.
- If the wire at the starting plug is red, green, or white, progress through the steps in reverse alphabetical order instead.

Step	Cut this wire if:
A or N	The previous wire is not yellow or blue or green.
B or O	The previous wire leads to an even numbered plug.
C or P	The previous wire should be cut.
D or Q	The previous wire is red or blue or black.
E or R	Two of the previous three wires share a color.
F or S	Exactly one of the previous two wires are the same color as this wire.
G or T	The previous wire is yellow or white or green.
H or U	The previous wire should not be cut.
I or V	The previous wire skips a plug.
J or W	The previous wire is not white or black or red.
K or X	The previous two wires are different colors.
L or Y	The previous wire does not lead to a position labeled 6 or less.
M or Z	Exactly one or neither of the previous two wires are white or black.

# On the Subject of Following the Leader

*Don't step out of line.*

Note: For use by those familiar with the original manual. Contact Nanthelas on Discord with any corrections.

All numbers refer to wires that originate at that numbered plug.

## Starting Wire

- If RJ-45 Port and Wire from 4 to 5, start at 4.
- Otherwise, start at number of batteries (if it exists).
- Otherwise, start at 1st SN digit (if it exists).
- Otherwise, if Lit CLR, cut all from highest to lowest.
- Otherwise, start at lowest numbered wire.

## Cutting Wires

- Always cut first wire.
- Go through chart starting with first SN letter.
- If Start is Red/Green/White, REVERSE ORDER.

Letter	Cut If
A/N	Previous is Red, White, or Black.
B/O	Previous ENDS at even.
C/P	Previous was cut.
D/Q	Previous is Red, Blue, or Black.
E/R	Of previous 3, 2 share a color.
F/S	Exactly 1 of previous 2 matches current color.
G/T	Previous is Yellow, White, or Green.
H/U	Previous was NOT cut.
I/V	Previous skips a plug.
J/W	Previous is Yellow, Blue, or Green.
K/X	Previous 2 are different colors
L/Y	Previous leads to $\geq 7$
M/Z	Of previous 2, at most 1 White or Black.

## On the Subject of Foreign Exchange Rates

*If bombs were stock brokers...*

Defusing this module requires the expert to have a device that can connect to the World Wide Web.

G	B	P
U	S	D
1	2	3

This module has the ability to connect to the internet and query the state of foreign exchange rates. There should be a three times three grid of keys, each with a light emitting diode. DO NOT PRESS ANY KEY ON THIS MODULE WHILE THE LIGHT EMITTING DIODES ARE FLASHING IN SEQUENCE.

The keys are grouped by rows:

Top row: ISO 4217 alphabetic code for the base currency.[1][2]
--

Middle row: ISO 4217 alphabetic code for the target currency.[1][2]
---

Bottom row: Value of currency to convert.
---

### All light emitting diodes have turned green:

Enter the following uniform resource locator into your internet capable device:

<http://api.fixer.io/latest?base=XXX&symbols=YYY>

Replace XXX with the ISO 4217 alphabetic code for the base currency.

Replace YYY with the ISO 4217 alphabetic code for the target currency.

You will receive data in a Javascript object notation format, look for {"YYY": NUMBER}, where NUMBER will be the exchange rate. Using the exchange rate, convert the number in the bottom row to the target currency, round that number down and take note of the 2nd digit from the left[4]. Press the Nth key where N is the noted number (count keys from left to right, top to bottom)[5].

### All light emitting diodes have turned red:

In this case the module failed to query today's currency rates. Get the ISO 4217 numeric code for the target currency's country and take note the 2nd digit from the right. Press the Nth key where N is the noted number (count keys from left to right, top to bottom)[5].

[1]: If there is more than one battery on the bomb, the base currency code and target currency code is swapped.

[2]: This may instead be the ISO 4217 numeric code.

[3]: Note the currency rates are updated around 4PM CET.

[4]: In the case the converted currency is less than 10, the noted number is 0.

[5]: In the case the noted number is 0, press the top left key.

## On the Subject of Foreign Exchange Rates

*If bombs were stock brokers...*

≥ 2 batteries: swap base and target currency.

If buttons are green:

- URL: [http://api.fixer.io/latest?  
base=base&symbols=target](http://api.fixer.io/latest?base=base&symbols=target)
- Round down.
- Press 2nd most significant digit (1 if zero).

G	B	P
U	S	D
1	2	3

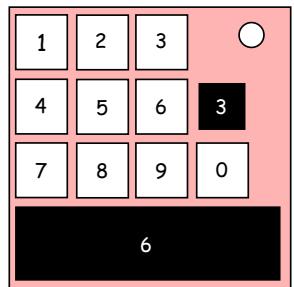
If buttons are red:

AUD	3	GBP	2	KRW	1	RUB	4
BGN	7	HKD	4	MXN	8	SEK	5
BRL	8	HRK	9	MYR	5	SGD	1
CAD	2	HUF	4	NOK	7	THB	6
CHF	5	IDR	6	NZD	5	TRY	4
CNY	5	ILS	7	PHP	1	USD	4
DKK	1	INR	5	PLN	8	ZAR	1
EUR	7	JPY	9	RON	4		

## 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.
- When all other modules have been completed, the display will turn blank.
- Press the recorded numbers on the keypad in the order they were obtained.



### 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 recorded number was even, the number is the previous recorded number plus 1.
- Otherwise, the number is the previous recorded number minus 1.

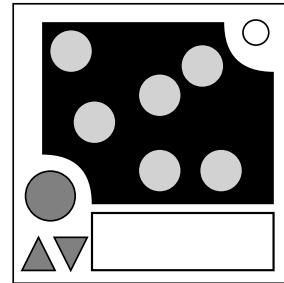
### All other numbers:

- If either of the previous two recorded numbers were 0, the number is the largest digit in the serial.
- Otherwise, if both of the previous two recorded 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 recorded numbers.

# Magic On the Subject of Friendship

*Hey. I could defuse this bomb in ten seconds flat.*

- Locate the friendship symbols from the display in the following table.
- Out of the symbols indicating columns, disregard the one furthest left on the display that isn't exactly above or below any other friendship symbol on the display.
- Out of the symbols indicating rows, disregard the one highest up on the display that isn't on the same height as any other friendship symbol on the display.
- Select one of the Elements of Harmony located at the intersections of the remaining rows and columns.



	J	G	U	K	V	8	L	C	H	4	W	P	M	R
	7	S	8	U	N	J	9	Y	F	P	Q	C	R	4
	Q	R	H	4	F	7	J	E	8	T	N	9	A	X
	D	3	S	H	U	E	T	P	V	J	L	A	4	7
	A	F	3	T	M	P	R	W	S	X	U	N	G	B
	V	K	G	P	Q	D	U	L	3	H	M	R	E	C
	4	9	T	F	B	X	D	U	Y	3	R	L	H	M
	G	4	9	J	8	3	X	K	A	Y	S	W	7	D
	K	T	F	B	J	Q	3	S	E	C	P	U	W	L
	S	M	A	C	7	H	E	B	G	F	V	X	L	N
	8	7	V	L	9	R	K	D	T	Q	B	Y	X	A
	W	8	4	Q	G	Y	V	T	7	N	3	B	C	P
	M	A	W	9	H	K	Y	J	N	D	X	E	8	F
	Y	N	B	G	W	S	M	Q	K	9	C	V	D	E

A = Altruism

H = Consideration

Q = Inspiration

X = Resoluteness

B = Amicability

J = Courage

R = Kindness

Y = Selflessness

C = Benevolence

K = Fairness

S = Laughter

3 = Sincerity

D = Caring

L = Flexibility

T = Love

4 = Solidarity

E = Charitableness

M = Generosity

U = Loyalty

7 = Support

F = Compassion

N = Helpfulness

V = Open-mindedness

8 = Sympathy

G = Conscientiousness

P = Honesty

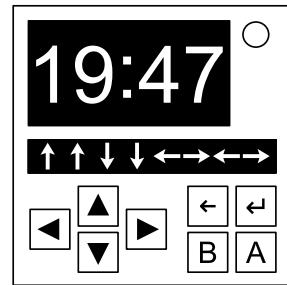
W = Patience

9 = Thoughtfulness

## On the Subject of the Gamepad

*Oh, the layout of the buttons on this thing takes me back to my childhood! Except I didn't expect to see that on a time bomb, even. Play time is over, I suppose.*

See Appendix MathConcepts: Mathematical Concepts for more information.



- Two 2-digit numbers will appear on the top LCD display.
- The bottom has eight keys: the input keys ( $\blacktriangle\blacktriangledown\blacktriangleright\blacktriangleright$  AB), Return, and Backspace.
- Determine the correct command, made of two subcommands, to input, depending on the properties of the two numbers. Use the first match.
- The two numbers are notated  $x$  and  $y$ . Individual digits are notated as  $abcd$ . A number followed by  $n$  means a multiple of that number.

Global Overrides	
Apply all matches <u>after</u> determining the two commands.	<ul style="list-style-type: none"> <li>If <math>x = 11n</math>, switch the first keypress with the second, and the fifth with the seventh.</li> <li>If <math>a = 1 + d</math>, switch the third and fourth keypresses, as well as the sixth and eighth.</li> <li>If <math>x</math> or <math>y</math> is a highly composite number, switch the order of the subcommands.</li> <li>If <math>x</math> and <math>y</math> are perfect squares, flip the entire sequence.</li> </ul>

First Subcommand	Second Subcommand
$x$ is prime	$\blacktriangle\blacktriangledown\blacktriangleright\blacktriangleright$
$x = 12n$	$\blacktriangle A \blacktriangleleft\blacktriangleleft$
$a+b = 10$ AND last digit of serial number is odd	$AB \blacktriangle\blacktriangleright$
$x = 6n + 3$ OR $x = 10n + 5$	$\blacktriangledown\blacktriangleleft A \blacktriangleright$
$x = 7n$ AND $y \neq 7n$	$\blacktriangle\blacktriangleleft\blacktriangle A B$
$x = c \times d$	$A\blacktriangle\blacktriangleleft\blacktriangle$
$x$ is a perfect square	$\blacktriangleright\blacktriangleright A\blacktriangledown$
$x = 3n - 1$ OR bomb has unlit ind. labeled SND	$\blacktriangleright A B A$
$60 \leq x < 90$ AND bomb has no batteries	$BB \blacktriangleright\blacktriangleleft$
$x = 6n$	$ABA \blacktriangleright$
$x = 4n$	$\blacktriangledown\blacktriangledown\blacktriangleleft\blacktriangle$
else	$A\blacktriangle\blacktriangleleft B \blacktriangleright$
	$y$ is prime
	$\blacktriangle\blacktriangleleft\blacktriangle\blacktriangleleft$
	$y = 8n$
	$\blacktriangledown\blacktriangleright B A$
	$c-d = 4$ AND bomb has a Stereo RCA
	$\blacktriangleright A\blacktriangledown\blacktriangleright\blacktriangleright$
	$y = 4n + 2$ OR bomb has lit ind. labeled FRQ
	$B A\blacktriangleright A$
	$y = 7n$ AND $x \neq 7n$
	$\blacktriangle\blacktriangleleft\blacktriangle\blacktriangledown A$
	$y$ is a perfect square
	$\blacktriangle\blacktriangledown B \blacktriangleright$
	$y = a \times b$
	$A\blacktriangle\blacktriangleleft\blacktriangle\blacktriangledown$
	$y = 4n - 1$ OR bomb has a PS/2 port
	$\blacktriangle BBB$
	$c > d$ AND bomb has 2 or more batteries
	$AA\blacktriangle\blacktriangledown$
	$y = 5n$
	$B A B \blacktriangleleft$
	$y = 3n$
	$\blacktriangleright\blacktriangle\blacktriangleleft\blacktriangle$
	else
	$B\blacktriangle A\blacktriangledown$

## Appendix MathConcepts: Mathematical Concepts

This appendix contains a brief overview of some mathematical concepts used in the Gamepad module.

### Prime Numbers

A prime number is a counting number (positive whole number) that can only be divided by 1 and itself. In other words, there is no way to share a prime number of donuts equally among any number of friends (unless you have as many friends as donuts!).

The prime numbers below 100 are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97.

### Perfect Squares

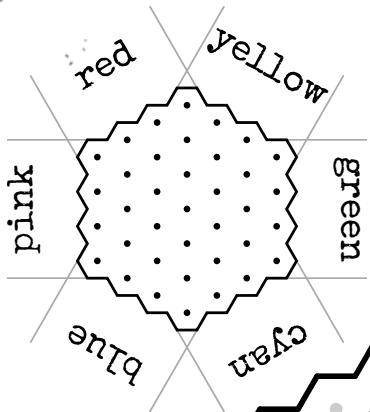
A perfect square is any whole number multiplied by itself.

The perfect squares below 100 are: 1, 4, 9, 16, 25, 36, 49, 64, 81.

### Highly Composite Numbers

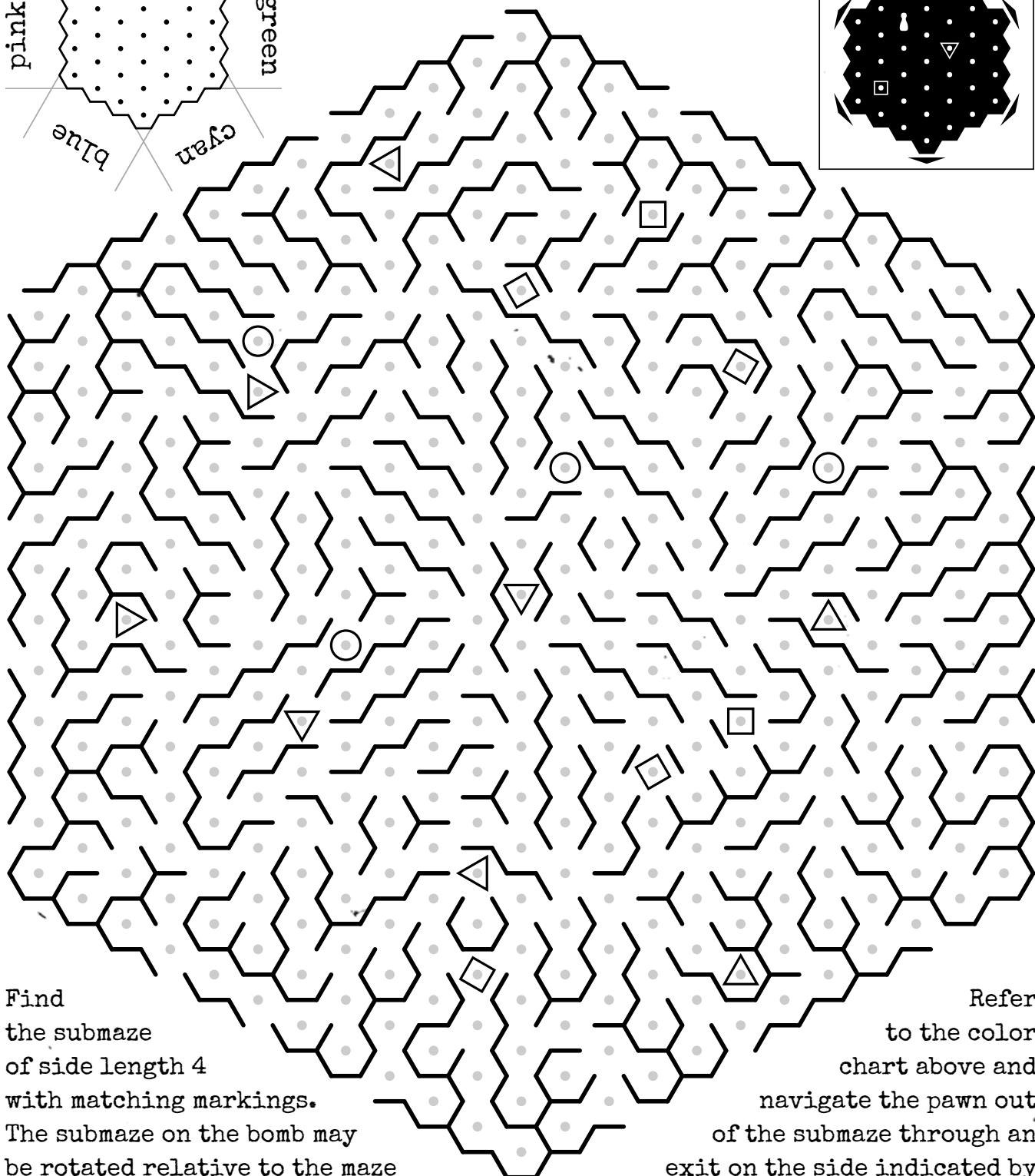
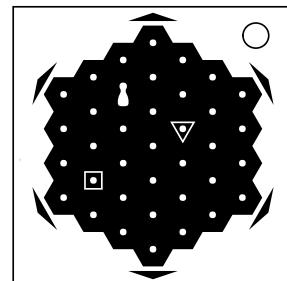
A highly composite number (HCN) has more divisors than any smaller positive integer. For example, 6 can be divided by 1, 2, 3, and 6, which is more than the last HCN, 4, which has 1, 2, and 4. 8 can be divided by 1, 2, 4, and 8, but a smaller number (6) has an equal number of divisors, so it is not a HCN.

The highly composite numbers below 100 are: 1, 2, 4, 6, 12, 24, 36, 48, 60.



## On the Subject of Hexamazes

*Dammit Jim, I'm a doctor, not a honeybee!*



Find  
the submaze  
of side length 4  
with matching markings.  
The submaze on the bomb may  
be rotated relative to the maze  
shown here.

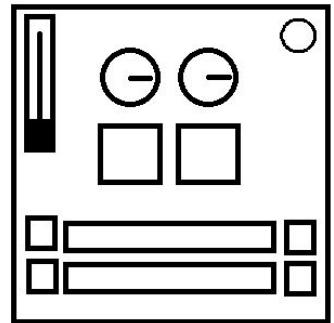
Refer  
to the color  
chart above and  
navigate the pawn out  
of the submaze through an  
exit on the side indicated by  
its color.

**Warning:** Do not cross the lines shown in the  
maze. These lines are invisible on the bomb.

# On the Subject of Laundry

*Sorting and folding are the least of your worries.*

All the messes from the previous explosions must be cleaned up. Using the Laundry Symbol Reference L4UHDR9 and the rules below, determine the correct setting on the machine panel. Once satisfied, insert a coin. On error, a sock will be lost, and a strike gained.



Determine the piece of clothing that has to be cleaned with the tables below. For all values higher than 5, subtract 6 from the total until the new number is less than 6. For all negative values, add 6 until you have a value between 0-5.

- **The Clothing Item** (table L41) is determined by the number of unsolved modules (excluding needy modules) + total amount of indicators.
- **The Item Material** (table L42) is determined by the total number of ports + the number of solved modules - battery holders.
- **The Item Color** (table L43) is determined by the last digit of serial number + batteries .

Use washing instructions based on the material, drying instructions based on the color, and use ironing and special instructions based on the item.

But, prioritize the following rules from top to bottom:

- If the color is Clouded Pearl ALWAYS use non-chlorine bleach.
- If the item is made out of leather, or in the color Jade Cluster, it can't go above 120°F. To be safe ALWAYS wash at 80°F.
- If the item is a corset or the material is corduroy then use special instructions based on material.
- If the material is wool or the color is Star Lemon Quartz ALWAYS dry with high heat.
- If a letter of the clothing material matches a letter in your serial code, then the color takes over the special instructions.
- BUT if there are exactly 4 batteries in 2 holders and a there is a lit BOB indicator, ignore all other rules. Bob did the work for you. Just throw in the coin. Thanks BOB.

Input the solution through putting The Washing Symbol Top-Left, The Drying Top-Right, Ironing on the top display and Special on the bottom display.

Table L41: Clothing Item Reference

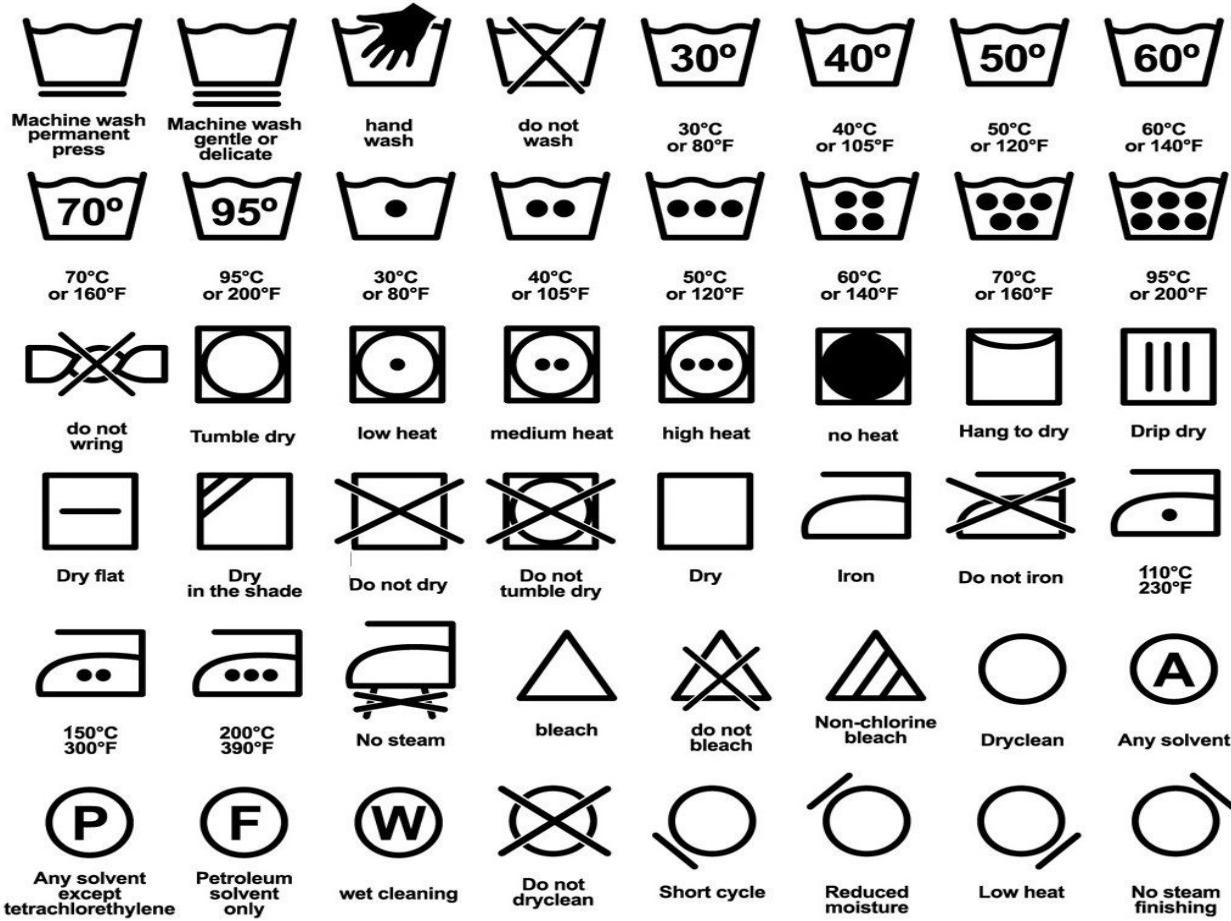
	CLOTHING ITEM	WASHING	DRYING	IRONING	SPECIAL
0	Corset	140°F	Dry Flat	2 dots	△
1	Shirt	105°F		No steam	No Tetrachlore-thylene
2	Skirt	30°C	Hang To Dry		Reduced Moisture
3	Skort		Tumble Dry	3 Dots	Circle Top Left
4	Shorts	Do Not Wring	Shade	150°C	
5	Scarf	95°C	Dry		Do not Dry Clean

Table L42: Clothing Material Reference

	CLOTHING MATERIAL	WASHING	DRYING	IRONING	SPECIAL
0	Polyester	50°C	No Heat	2 dots	
1	Cotton		Medium Heat	Iron	Do Not Dry Clean
2	Wool	Handwash		390°F	Reduced Moisture
3	Nylon	30°C	Drip Dry		Low Heat
4	Corduroy	105°F		110°C	W
5	Leather	Do Not Wash	Do Not Dry	Do Not Iron	

**Table L43: Clothing Color Reference**

	CLOTHING COLOR	WASHING	DRYING	IRONING	SPECIAL
0	Ruby Fountain	140°F		Do Not Iron	
1	Star Lemon Quartz		Dry Flat	Iron	
2	Sapphire Springs	80°F	Tumble Dry		
3	Jade Cluster	30°C		300°F	
4	Clouded Pearl		Low Heat	No steam	
5	Malinite	60°C	Medium Heat		

**Laundry Symbol Reference**

# On the Subject of Actually Doing Laundry

*Who knows, maybe BOB will stop by to help you out.*

Note: For use by those familiar with the original manual. Contact Nanthelas on Discord with any corrections.

## Item Determination

- **Item:** Unsolved Modules (Excluding Needy) + Indicators
- **Material:** Ports + Solved Modules - Holders
- **Color:** Last Digit of Serial + Batteries

Number	Material
0	Polyester
1	Cotton
2	Wool
3	Nylon
4	Corduroy
5	Leather

## Rules and Tables

- **C4:** No Chlorine [Special]
- Else, **I0 or M4:** [Special] based on Material
- Else, letter of **Material** matches Serial: [Special] based on Color
- Else, [Special] based on Item
- **C3:**  [Wash]
- **M2:**  [Dry]
- **4/2 and Lit BOB:** Praise our one true lord and savior BOB, Bestower of Bleach

Item	Ironing	Special
0	300°F	Bleach
1	No Steam	No Tetrachlore
2	Iron	Reduced Moist
3	200°C	Reduced Moist
4	300°F	Don't Bleach
5	110°C	Don't Dryclean

Material	Washing	Special
0		Petroleum Only
1		Don't Dryclean
2		Reduced Moist
3		Low Heat
4		Wet Cleaning
5		No Tetrachlore

Color	Drying	Special
0		Any Solvent
1		Low Heat
2		Short Cycle
3		No Steam Finish
4		No Chlorine
5		No Chlorine

## On the Subject of Laundry

Material = Ports + Solved Modules - Holders

O = POLYESTER

Us+ind→ ↓Lst#+b	0	1	2	3	4	5
0	5 <u>3</u> FP	5 <u>3</u> NA/T	5 <u>3</u> IA/R	5 <u>3</u> 2A/R	5 <u>3</u> FA/B	5 <u>3</u> 1A/D
1	5 <u>3</u> FP	5 <u>3</u> NL/T	5 <u>3</u> IL/R	5 <u>3</u> 2L/R	5 <u>3</u> FL/B	5 <u>3</u> 1L/D
2	5 <u>0</u> FP	5 <u>0</u> NS/T	5 <u>0</u> IS/R	5 <u>0</u> 2S/R	5 <u>0</u> FS/B	5 <u>0</u> 1S/D
3	3 <u>X</u> FP	3 <u>X</u> NO/T	3 <u>X</u> IO/R	3 <u>X</u> 2O/R	3 <u>X</u> FO/B	3 <u>X</u> 1O/D
4	5 <u>1</u> FC	5 <u>1</u> NC	5 <u>1</u> IC	5 <u>1</u> 2C	5 <u>1</u> FC	5 <u>1</u> 1C
5	5 <u>2</u> FP	5 <u>2</u> NC/T	5 <u>2</u> IC/R	5 <u>2</u> 2C/R	5 <u>2</u> FC/B	5 <u>2</u> 1C/D

1 = COTTON

Us+ind→ ↓Lst#+b	0	1	2	3	4	5
0	9 <u>3</u> FD	9 <u>3</u> NA/T	9 <u>3</u> IA/R	9 <u>3</u> 2A/R	9 <u>3</u> FA/B	9 <u>3</u> 1A/D
1	9 <u>3</u> FD	9 <u>3</u> NL/T	9 <u>3</u> IL/R	9 <u>3</u> 2L/R	9 <u>3</u> FL/B	9 <u>3</u> 1L/D
2	9 <u>0</u> FD	9 <u>0</u> NS/T	9 <u>0</u> IS/R	9 <u>0</u> 2S/R	9 <u>0</u> FS/B	9 <u>0</u> 1S/D
3	3 <u>X</u> FD	3 <u>X</u> NO/T	3 <u>X</u> IO/R	3 <u>X</u> 2O/R	3 <u>X</u> FO/B	3 <u>X</u> 1O/D
4	9 <u>1</u> FC	9 <u>1</u> NC	9 <u>1</u> IC	9 <u>1</u> 2C	9 <u>1</u> FC	9 <u>1</u> 1C
5	9 <u>2</u> FD	9 <u>2</u> NC/T	9 <u>2</u> IC/R	9 <u>2</u> 2C/R	9 <u>2</u> FC/B	9 <u>2</u> 1C/D

2 = WOOL

Us+ind→ ↓Lst#+b	0	1	2	3	4	5
0	H <u>3</u> FR	H <u>3</u> NA/T	H <u>3</u> IA/R	H <u>3</u> 2A/R	H <u>3</u> FA/B	H <u>3</u> 1A/D
1	H <u>3</u> FR	H <u>3</u> NL/T	H <u>3</u> IL/R	H <u>3</u> 2L/R	H <u>3</u> FL/B	H <u>3</u> 1L/D
2	H <u>3</u> FR	H <u>3</u> NS/T	H <u>3</u> IS/R	H <u>3</u> 2S/R	H <u>3</u> FS/B	H <u>3</u> 1S/D
3	3 <u>3</u> FR	3 <u>3</u> NO/T	3 <u>3</u> IO/R	3 <u>3</u> 2O/R	3 <u>3</u> FO/B	3 <u>3</u> 1O/D
4	H <u>3</u> FC	H <u>3</u> NC	H <u>3</u> IC	H <u>3</u> 2C	H <u>3</u> FC	H <u>3</u> 1C
5	H <u>3</u> FR	H <u>3</u> NC/T	H <u>3</u> IC/R	H <u>3</u> 2C/R	H <u>3</u> FC/B	H <u>3</u> 1C/D

3 = NYLON

Us+ind→ ↓Lst#+b	0	1	2	3	4	5
0	3 <u>3</u> FL	3 <u>3</u> NA/T	3 <u>3</u> IA/R	3 <u>3</u> 2A/R	3 <u>3</u> FA/B	3 <u>3</u> 1A/D
1	3 <u>3</u> FL	3 <u>3</u> NL/T	3 <u>3</u> IL/R	3 <u>3</u> 2L/R	3 <u>3</u> FL/B	3 <u>3</u> 1L/D
2	3 <u>0</u> FL	3 <u>0</u> NS/T	3 <u>0</u> IS/R	3 <u>0</u> 2S/R	3 <u>0</u> FS/B	3 <u>0</u> 1S/D
3	3 <u>X</u> FL	3 <u>X</u> NO/T	3 <u>X</u> IO/R	3 <u>X</u> 2O/R	3 <u>X</u> FO/B	3 <u>X</u> 1O/D
4	3 <u>1</u> FC	3 <u>1</u> NC	3 <u>1</u> IC	3 <u>1</u> 2C	3 <u>1</u> FC	3 <u>1</u> 1C
5	3 <u>2</u> FL	3 <u>2</u> NC/T	3 <u>2</u> IC/R	3 <u>2</u> 2C/R	3 <u>2</u> FC/B	3 <u>2</u> 1C/D

4 = CORDUROY

Us+ind→ ↓Lst#+b	0	1	2	3	4	5
0	4 <u>3</u> FW	4 <u>3</u> NW	4 <u>3</u> IW	4 <u>3</u> 2W	4 <u>3</u> FW	4 <u>3</u> 1W
1	4 <u>3</u> FW	4 <u>3</u> NW	4 <u>3</u> IW	4 <u>3</u> 2W	4 <u>3</u> FW	4 <u>3</u> 1W
2	4 <u>0</u> FW	4 <u>0</u> NW	4 <u>0</u> IW	4 <u>0</u> 2W	4 <u>0</u> FW	4 <u>0</u> 1W
3	3 <u>X</u> FW	3 <u>X</u> NW	3 <u>X</u> IW	3 <u>X</u> 2W	3 <u>X</u> FW	3 <u>X</u> 1W
4	4 <u>1</u> FC	4 <u>1</u> NC	4 <u>1</u> IC	4 <u>1</u> 2C	4 <u>1</u> FC	4 <u>1</u> 1C
5	4 <u>2</u> FW	4 <u>2</u> NW	4 <u>2</u> IW	4 <u>2</u> 2W	4 <u>2</u> FW	4 <u>2</u> 1W

- 1 = 110°C
- 2 = 200°C
- 3 = 30°
- 4 = 40°
- 5 = 50°
- 9 = 95°
- A = Any Solvent
- B = Don't Bleach
- C = No Chlorine
- D = Don't Dryclean
- F = 300°F
- H = Hand
- I = Iron
- L = Low Heat
- N = No Steam
- O = No Steam Finish
- P = Petroleum Only
- R = Reduced Moist
- S = Short Cycle
- T = No Tetrachlore
- W = Wet Cleaning

5 = LEATHER

Us+ind→ ↓Lst#+b	0	1	2
0	3 <u>3</u> FT	3 <u>3</u> NA/T	3 <u>3</u> IA/R
1	3 <u>3</u> FT	3 <u>3</u> NL/T	3 <u>3</u> IL/R
2	3 <u>0</u> FT	3 <u>0</u> NS/T	3 <u>0</u> IS/R
3	3 <u>X</u> FT	3 <u>X</u> NO/T	3 <u>X</u> IO/R
4	3 <u>1</u> FC	3 <u>1</u> NC	3 <u>1</u> IC
5	3 <u>2</u> FT	3 <u>2</u> NC/T	3 <u>2</u> IC/R

5 = LEATHER

Us+ind→ ↓Lst#+b	3	4	5
0	3 <u>3</u> 2A/R	3 <u>3</u> FA/B	3 <u>3</u> 1A/D
1	3 <u>3</u> 2L/R	3 <u>3</u> FL/B	3 <u>3</u> 1L/D
2	3 <u>0</u> 2S/R	3 <u>0</u> FS/B	3 <u>0</u> 1S/D
3	3 <u>X</u> 2O/R	3 <u>X</u> FO/B	3 <u>X</u> 1O/D
4	3 <u>1</u> 2C	3 <u>1</u> FC	3 <u>1</u> 1C
5	3 <u>2</u> 2C/R	3 <u>2</u> FC/B	3 <u>2</u> 1C/D

## On the Subject of Lettered Keys

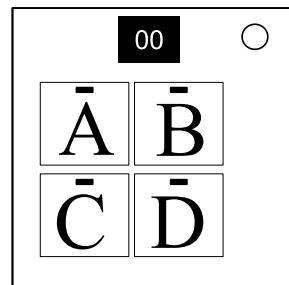
*I haven't thought of anything yet...*

*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:

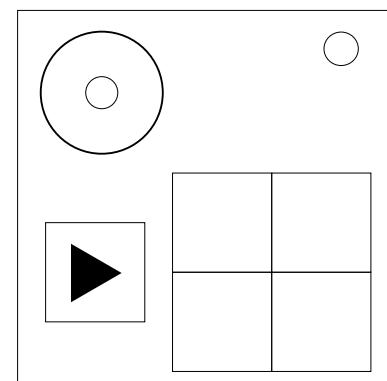
1. If the number indicated is equal to sixty-nine, Press the button with the label 'D'
2. If the number indicated is divisible by six, press the button with the label 'A'
3. If there are two or more batteries on the bomb and the number is divisible by three, press the button with the label 'B'
4. If the Serial number contains a 'C' 'E' or '3' and the number is greater than or equal to twenty-two, and less than or equal to seventy-nine, then press the button labelled 'B'
5. Otherwise, if the serial number contains a 'C' 'E' or '3', then press the button labelled 'C'
6. If the indicated number is less than forty-six, then press the button labelled 'D'
7. Otherwise, press the button labelled 'A'



## On the Subject of Listening

"Why did we send a deaf person to defuse a bomb?" – Person who is no longer alive.

Press the play button to play a sound clip through the speaker. Each sound clip has a corresponding code that contains any of the four symbols \$ \* & #. Match the sound clip to the table below and enter the code via the four button keypad.



Taxi Dispatch	&&&**	Dial-up Internet	*#&*&
Cow	&\$#\$\$&	Police Radio Scanner	**###
Extractor Fan	\$#\$\$*&	Censorship Bleep	&&\$&*
Train Station	#\$\$**	Medieval Weapons	&\$**&
Arcade	\$#\$\$#*	Door Closing	#\$#&\$
Casino	**\$*#	Chainsaw	&#&&#
Supermarket	#\$\$&*	Compressed Air	\$\$*\$*
Soccer Match	##*\$*	Servo Motor	\$&\$\$\$
Tawny Owl	\$#*\$&	Waterfall	&**\$\$
Sewing Machine	#&&*#	Tearing Fabric	\$&&*&
Thrush Nightingale	**#**	Zipper	&\$&##
Car Engine	&#**&	Vacuum Cleaner	#&\$*&
Reloading Glock 19	\$&**#	Ballpoint Pen Writing	\$*\$\$**
Oboe	&\$\$##	Rattling Iron Chain	*#\$&&
Saxaphone	\$&&**	Book Page Turning	###&\$
Tuba	#&\$##	Table Tennis	*\$\$&\$
Marimba	&*\$*\$\$	Squeeky Toy	\$*&##
Phone Ringing	&\$\$&*	Helicopter	#&\$&&
Tibetan Nuns	#&&&&	Firework Exploding	\$&\$\$*
Throat Singing	**\$\$##	Glass Shattering	*\$*\$\$*
Beach	*&*&&		

Note: pressing play also clears whatever code you have entered.

## On the Subject of Logic

*Logic, Logic. That's an easy stuff but with the complexity of this bomb this maybe harder than you think.*

- Each row will display 3 letters. Each letter will represent a statement.
- If ALL statement in the top row is true. That row is true.
- If ANY statement in the bottom row is true. That row is true.
- Use T/F button to the right to select True/False.
- Press "Submit" when done.

<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F
<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F
				SUBMIT

*See Appendix A for indicator identification reference.*

*See Appendix B for battery identification reference.*

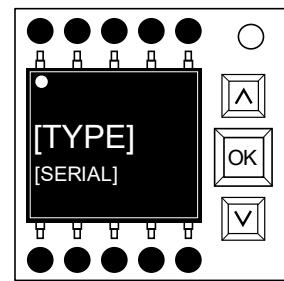
*See Appendix C for port identification reference.*

Letter	This letter is true if:	Letter	This letter is true if:
A	More than 2 batteries.	N	Exactly 1 battery.
B	Has Serial port.	O	No battery.
C	Has Parallel port.	P	Has RJ-45 port.
D	Serial number has vowel.	Q	Has DVI-D port.
E	Serial number doesn't have vowel.	R	More than 5 batteries.
F	Has Stereo RCA port.	S	Has SIG and CAR lit indicators.
G	Has CLR lit indicator.	T	Has at least 2 batteries and PS/2 port.
H	Has IND lit indicator.	U	Has serial and parallel port.
I	Less than 1 battery.	V	Has BOB lit indicator.
J	Has MSA lit indicator.	W	No letter in serial number.
K	Last digit of serial number is odd.	X	Has at least 4 port types.
L	Last digit of serial number is even.	Y	No lit indicator.
M	Has FRK lit indicator.	Z	Has RJ-45 port and Serial port.

## On the Subject of Microcontrollers

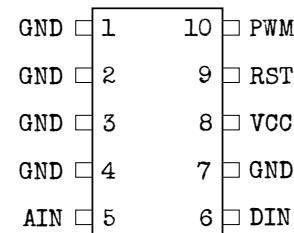
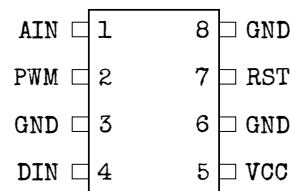
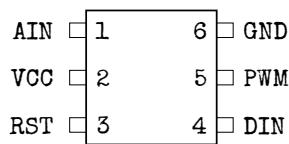
*It's called "micro"-controller yet this thing in there is pretty big. Probably because it can cause a pretty big explosion...*

1. Use the controller's imprinted type and its size to determine its pin configuration with the diagrams below.
2. The white mark on the controller indicates where the pin with the number 1 is located. The other pins are in ascending order on the side with the number 1 and then continued backwards on the other side.
3. Using the table below determine the correct color code for each connected element.
4. For each pin choose the correct element by pressing the UP and DOWN buttons and confirming your input with the OK button (the next pin will be selected automatically).

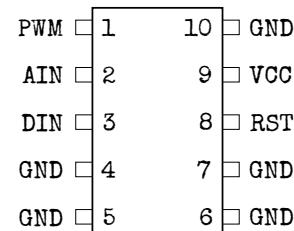
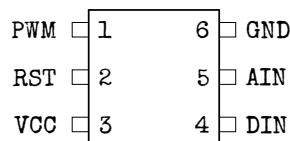
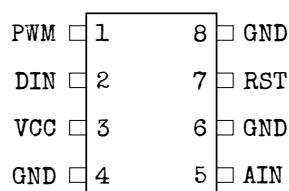


### Pin Configurations

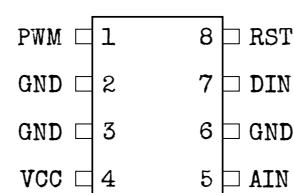
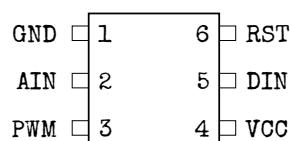
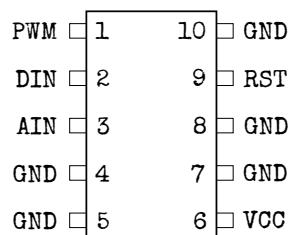
Strike (STRK) Controller:



Diode (LEDS) Controller:

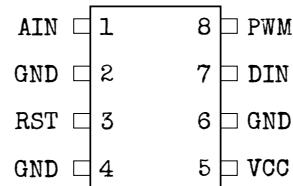
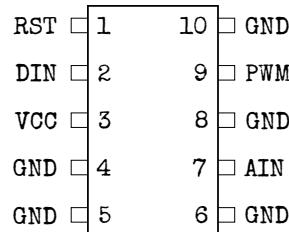
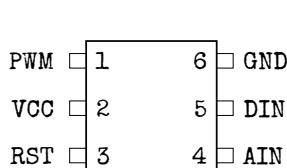


Countdown (CNTD) Controller:



continued on next page ...

## Explosion (EXPL) Controller:



## Component Color Codes

	Input Voltage (VCC)	Analog Input (AIN)	Digital Input (DIN)	Pulse Width Modulation (PWM)	Reset (RST)
If the last digit of the controller's serial number is 1 or 4	Yellow	Magenta	Green	Blue	Red
Otherwise, if there is a lit indicator "SIG" or a RJ-45 port	Yellow	Red	Magenta	Green	Blue
Otherwise, if the bomb's serial number contains C, L, R, X, 1 or 8	Red	Magenta	Green	Blue	Yellow
Otherwise, if the second numerical digit of the controller's serial number matches the number of batteries on the bomb	Red	Blue	Yellow	Green	Magenta
Otherwise	Green	Red	Yellow	Blue	Magenta

Note: Ground (GND) is always coded with white.

# On the Subject of Controlling Microcontrollers

*Hopefully you don't get a STRK off of this one.*

Note: For use by those familiar with the original manual. Contact Nanthelas on Discord with any corrections.

## Prime Sequence

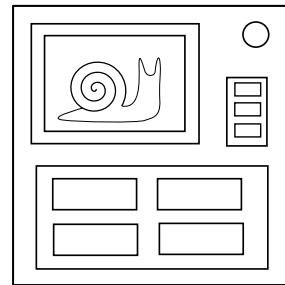
	6 Pins	8 Pins	10 Pins
<b>STRK</b>	AVR DPG	APGD VGRG	GGGGA DGVRP
<b>LEDS</b>	PRV DAG	PDVG AGRG	PADGG GGRVG
<b>CNTD</b>	GAP VDR	PGGV AGDR	PDAGG VGGRG
<b>EXPL</b>	PVR ADG	AGR G VGDP	RDVGG GAGPG

## Colors

	V	A	D	P	R
Last of C. Serial is 1 or 4	Yellow	Magenta	Green	Blue	Red
Lit SIG or RJ	Yellow	Red	Magenta	Green	Blue
B. Serial has C, L, R, X, 1, or 8	Red	Magenta	Green	Blue	Yellow
2 <sup>nd</sup> of C. Serial = Batteries	Red	Blue	Yellow	Green	Magenta
Else	Green	Red	Yellow	Blue	Magenta

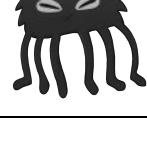
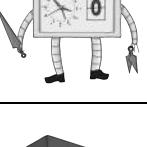
## On the Subject of Monsplode, Fight!

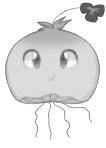
*Are you still a fan of some animated series from your childhood? It looks like you stumbled upon another fan.*



- You encountered a wild Monsplode™.
- You can perform 4 different moves against it.
- Pick a move to deal the highest possible net damage to the opposing Monsplode™.
- A wrong move will incur a strike and the module will reset.
- Each move has a type, damage, and sometimes a special rule. ([Special rules can override earlier information.](#))
- Each Monsplode™ also has a type, and sometimes a special rule.
- Net damage of a move is its base damage multiplied by the type advantage/disadvantage multiplier.

Monsplode™	Name	Type	Special Rules
	Buhar	WATER	Takes no damage from ROCK type moves.
	Lanaluff	NORMAL	If its name has a common letter with the serial, takes +3 net damage from POISON type moves.
	Bob	NORMAL	If there is a lit BOB indicator, only takes damage from NORMAL type moves.
	Mountoise	ROCK	Its type is NORMAL if the bomb has a strike.
	Nibs	NORMAL	Takes no damage from GRASS type moves.

Monsplode™	Name	Type	Special Rules
	Aluga	NORMAL	Takes +2 net damage from FIRE type moves. Takes -1 net damage from WATER type moves.
	Lugirit	GHOST	Takes +2 net damage from WATER type moves. Takes -1 net damage from FIRE type moves.
	Caadarim	NORMAL	If there is at least one port, takes no damage from normal type moves.
	Vellarim	WATER	If there is a Parallel port, takes no damage from normal type moves.
	Flaurim	FIRE	If there is a Serial port, takes no damage from normal type moves.
	Gloorim	DARK	If there is a DVI-D port, takes no damage from normal type moves.
	Melbor	DARK	If net damage of a move is exactly 6 or 8, it takes 0 damage instead.
	Clondar	ELECTR	Takes +3 net damage from WATER type moves.
	Docspplode	NORMAL	"Boom" will explode Docspplode instead of the bomb. It must be used if present.

Monsplode™	Name	Type	Special Rules
	Magmy	FIRE	If there are less than 3 batteries on the bomb, its type is ROCK.
	Pouse	ELECTR	If net damage of a move is 6 or more, it takes 0 damage instead.
	Ukkens	POISON	Takes no damage from WATER type moves.
	Asteran	GRASS	If there is a CAR indicator present, its type is WATER.
	Violan	GRASS	If there is a CLR indicator present, its type is WATER.
	Zenlad	GRASS	Takes +3 damage from ELECTR type moves.
	Zapra	ELECTR	If there is less than 3 batteries on the bomb, its type is NORMAL.
	Myrchat	POISON	If there is no lit indicator on the bomb, its type is DARK.

Move Name	Move Type	Base Damage	Special Rules
Appearify	NORMAL	4	Damage is 10 if the opponent is a DARK type.
Battery Power	ELECTR	0	Add 2 damage for each battery on the bomb.
Bedrock	ROCK	0	Damage is number of distinct modules on the bomb.
Boo	GHOST	0	Add 3 damage for each '0' or 'O' in the serial number.
Boom	FIRE	0	Pressing this will detonate the bomb.
Bug Spray	POISON	2	Damage is 10 against Melbor and Zenlad.
Countdown	POISON	0	Damage is time left on the bomb in minutes, rounded down.
Dark Portal	DARK	0	Damage is the number of ports present.
Fiery Soul	FIRE	0	Damage is number of batteries multiplied by the number of battery holders.
Freak Out	GHOST	1	Damage is 5 if there is a "FRK" or "FRQ" indicator. 10 if any of them are lit.
Glyph	NORMAL	0	Damage is letter count of the opponent's name.
Last Word	GHOST	0	Damage is last digit of the serial number.
Sendify	NORMAL	2	Damage is 10 if the opponent is a ROCK or GRASS type.
Shock	ELECTR	3	Damage is 8 if there is an RJ-45 port on the bomb.
Shrink	NORMAL	0	Damage is the smallest digit of the serial number.
Stretch	NORMAL	0	Damage is the largest digit of the serial number.
Void	DARK	2	Damage is 10 if no other module is disarmed before this one.

Move Name	Move Type	Base Damage		Move Name	Move Type	Base Damage
Candle	FIRE	3		Spectre	GHOST	5
Cave In	ROCK	3		Splash	WATER	0
Double Zap	ELECTR	4		Tac	NORMAL	5
Earthquake	ROCK	5		Tangle	GRASS	2
Flame Spear	FIRE	6		Tic	NORMAL	3
Fountain	WATER	6		Toe	NORMAL	1
Grass Blade	GRASS	4		Torchlight	FIRE	4
Heavy Rain	WATER	4		Toxic Waste	POISON	5
High Voltage	ELECTR	6		Venom Fang	POISON	3
Hollow Gaze	DARK	4		Zap	ELECTR	2
Ivy Spikes	GRASS	6		-	-	-

Opposing Type →	N O R M A L	P O I S O N	R O C K	G H O S T	F I R E	W A T E R	G R A S S	E L E C T R	D A R K
↓ Move Type									
<b>NORMAL</b>	x1	x1	x1/2	x0	x1	x1	x1	x1	x1
<b>POISON</b>	x1	x1/2	x1/2	x1/2	x1	x1	x2	x1	x1
<b>ROCK</b>	x1	x1	x1	x1	x2	x1	x1	x1	x1
<b>GHOST</b>	x0	x1	x1	x2	x1	x1	x1	x1	x1/2
<b>FIRE</b>	x1	x1	x1/2	x1	x1/2	x1/2	x2	x1	x1
<b>WATER</b>	x1	x1	x2	x1	x2	x1/2	x1/2	x1	x1
<b>GRASS</b>	x1	x1/2	x2	x1	x1/2	x2	x1/2	x1	x1
<b>ELECTR</b>	x1	x1	x1	x1	x1	x2	x1/2	x1/2	x1
<b>DARK</b>	x1	x1	x1	x2	x1	x1	x1	x1	x1/2