BOMB DEFUSAL MANUAL

MOONCAT EDITION

Important Information

This information will likely be needed to disarm the bomb. If you see the following modules, ask the diffuser for those details.

INFO NEEDED	INFO	Wires	Button	Complex Wires	Simon Says
# of Batteries	0-3+				
Last # of Serial	Even/Odd				
Vowel in Serial #	Y/N				
Parallel Port	Y/N				
Lit Label: CAR	Y/N				
Lit Label: FRK	Y/N				
# of Strikes	0-2				
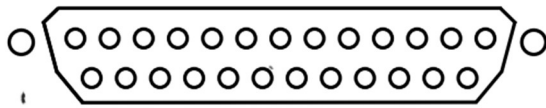
The parallel port is the only port that currently needs identifying.

| YES	MAYBE	NO
Morse Code	Symbols	Wires
Memory	Wire Sequence	Button
Complex Wires	Mazes	Simon Says
Passwords		Who's on First

Some modules require pen and paper to solve.

The highlighted modules require extra time to figure out. If you have several experts, note the information and work on this while the diffuser works on other modules.

Good practice is to start with Morse Code so you catch the sequence at the start, no need to wait for cycle to restart.

Simon Says is a useful first module to solve as it relies on the amount of strikes. If it is first then there are guaranteed no strikes.

On the Subject of WIRES
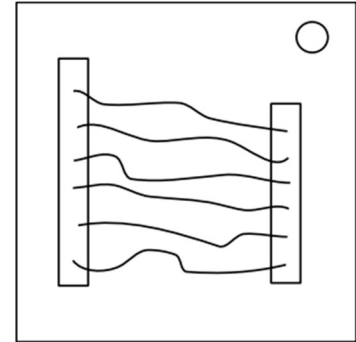
Info needed from diffuser:

- Number of wires
- Last digit of Serial Number

Only one wire will need to be cut.

Follow the steps relative to the number of wires and cut for the first condition that is met.

3 WIRES

Wire Configuration	Cut
NO **RED**	CUT 2
LAST **WHITE**	CUT 3
2+ **BLUE**	CUT LAST **BLUE**
IF NO	CUT 3

4 WIRES

Wire Configuration		Cut
2+ **RED**	LAST S# ODD	CUT LAST **RED**
NO **RED**	**YELLOW** LAST	CUT 1
1 **BLUE**		CUT 1
2+ **YELLOW**		CUT 4
IF NO		CUT 2

5 WIRES

Wire Configuration		Cut
LAST **BLACK**	LAST S# ODD	CUT 4
1 **RED**	2+ **YELLOW**	CUT 1
NO **BLACK**		CUT 2
IF NO		CUT 1

6 WIRES

Wire Configuration		Cut
NO **YELLOW**	LAST S# ODD	CUT 3
1 **YELLOW**	0-1 **WHITE**	CUT 4
NO **RED**		CUT 6
IF NO		CUT 4

On the Subject of BUTTONS

Info needed from diffuser:

- Number of Batteries
- LIT Label: CAR or FRK
- Colour and Text of Button
- Colour of Strip if Button held
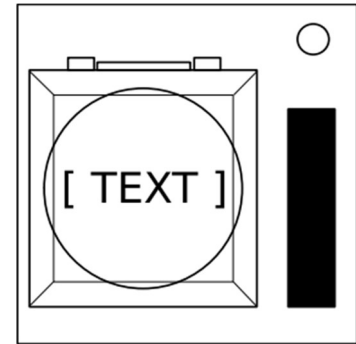
Follow the steps in order and execute the first condition that is met.

The Button will either need to be pressed and held till further instructions or tapped and immediately released.

Button Configuration		Tap/Hold
BLUE	**ABORT**	HOLD
2+ BATTERIES	**DETONATE**	TAP
WHITE	LIT LABEL: **CAR**	HOLD
3+ BATTERIES	LIT LABEL: **FRK**	TAP
YELLOW		HOLD
RED	**HOLD**	TAP
IF NO		HOLD

If the Button is HELD, release when there is the following number on the Countdown Timer.

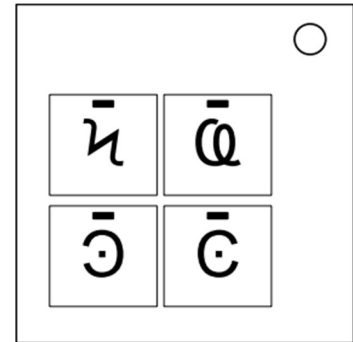| Light Strip Colour	Release On
BLUE	4
YELLOW	5
ELSE	1

On the Subject of SYMBOLS

Info needed from diffuser:

- The symbols that appear

Note the symbols provided and find the relevant column.

Once you have the correct sequence, repeat the symbols back in order they appear TOP to BOTTOM.

	Unique		Always first		Always last
Q	Ӭ	©	б	Ψ	б
Ⱥ	Q	ꙡ	¶	ꙟ	Ӭ
λ	Э	ꚛ	Ђ	Ђ	≢
ч	ꚛ	Ж	Ӿ	Ꞓ	æ
Ӿ	☆	ჳ	Ж	¶	Ψ
ӂ	ӂ	λ	¿	ӡ	Й
Э	¿	☆	ꙟ	★	Ω

Here are some common names for each symbol

Q	Tennis Racket; Q	ӂ	Fancy H	¿	Question Mark	б	Flat 6	ჳ	Alien 3
Ⱥ	AT; A with Peen	Э	Backwards C Dot	©	Copyright	¶	Paragraph; P	★	Black Star
λ	Lambda; Half Life	Ӭ	Backwards E; Euro	ꙡ	Butt; Ballsack	Ђ	BT; TB	≢	Not Equals
ч	Lightning	ꚛ	Curly O; Disney	Ж	Double K; XI	ꙟ	Smiley Face	æ	AE
Ӿ	Kitty	☆	White Star	ჳ	Broken 3; Broken R	Ψ	Psi; Trident	Й	Backwards N
						Ꞓ	C Dot	Ω	Omega

On the Subject of SIMON SAYS

Info needed from diffuser:

- Vowel in Serial Number
- Number of Strikes on Bomb
- Order of Flashing Lights
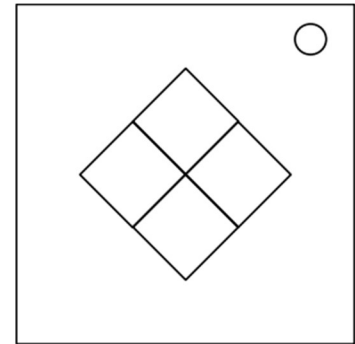
Depending on how many strikes and the appearance of a vowel in the Serial number, simply follow the light order from the diffuser and select the correct colour to press.

VOWEL IN SERIAL #				
STRIKES	RED FLASH	BLUE FLASH	GREEN FLASH	YELLOW FLASH
0	BLUE	RED	YELLOW	GREEN
1	YELLOW	GREEN	BLUE	RED
2	GREEN	RED	YELLOW	BLUE

| NO VOWEL IN SERIAL #				
STRIKES	RED FLASH	BLUE FLASH	GREEN FLASH	YELLOW FLASH
0	BLUE	YELLOW	GREEN	RED
1	RED	BLUE	YELLOW	GREEN
2	YELLOW	GREEN	BLUE	RED

Another method is to use this diagram to follow the pattern the lights move in.

It is also possible for a Diffuser to memorise the ZERO Strike pattern and complete it while Experts work on another module.

On the Subject of WHO'S ON FIRST

Info needed from diffuser:

- What is on the Display
- Word on chosen button
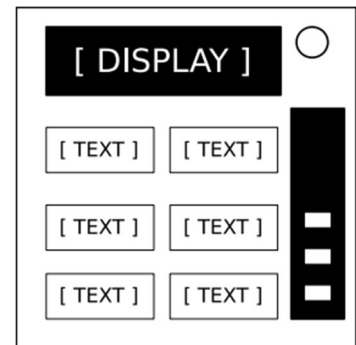
Once you know the information from the display, communicate which button has the EYE symbol (Top Right, Middle Left etc.).

The Diffuser will then tell you what is written on the button and you follow the list of words from the second set. The Diffuser presses the button for which ever word appears on a button.

When communicating what is written, try to use "identifiers" before the word. This helps greatly with similar sounding prompts.

LETTERS	UR
WORD	YOUR
APOSTROPHE	YOU'RE
PHRASE	YOU ARE
WORD	YOU

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

It is useful to know the phonetic alphabet when you have trouble communicating differences between similar words and phrases.

A	ALPHA	**H**	HOTEL	**O**	OSCAR	**U**	UNIFORM
B	BRAVO	**I**	INDIGO	**P**	PAPA	**V**	VICTOR
C	CHARLIE	**J**	JULIET	**Q**	QUEBEC	**W**	WHISKEY
D	DELTA	**K**	KILO	**R**	ROMEO	**X**	XRAY
E	ECHO	**L**	LIME	**S**	SIERA	**Y**	YANKEE
F	FOXTROT	**M**	MIKE	**T**	TANGO	**Z**	ZULU
G	GOLF	**N**	NOVEMBER				

On the Subject of Morse Code

Info needed from diffuser:

- Read Dot/Dash sequence from start
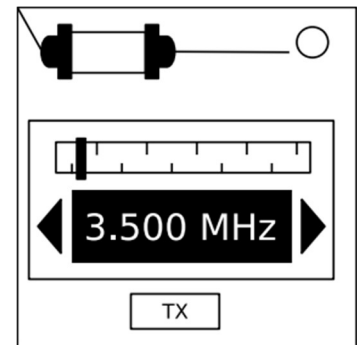
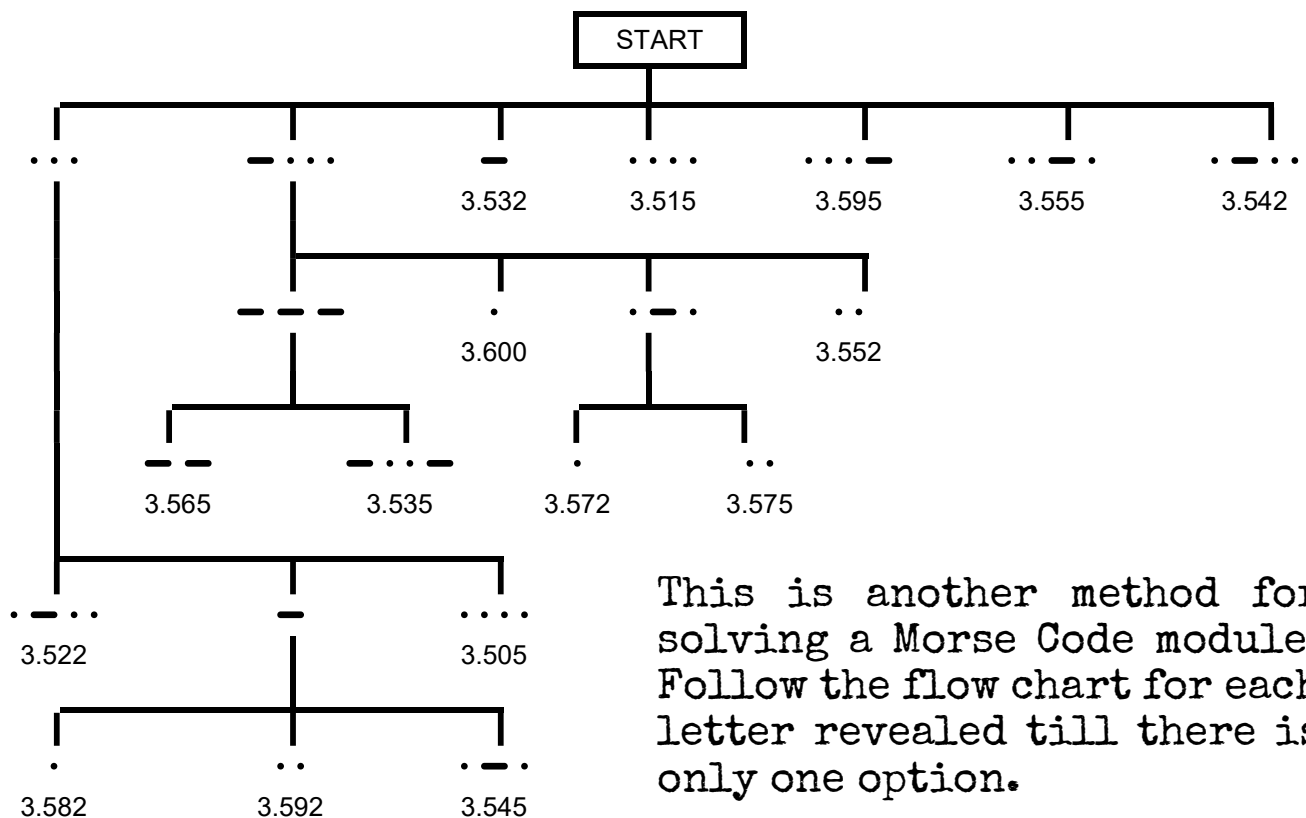Make sure the sequence resets first. Read short pulses as "Dot" and long as "Dash". Pauses can be read as "Space" if wanted. Long Pauses indicates end of the word. Work out the Word then input the Number.

S WORDS	(blue)
B WORDS	(green)
START LETTERS	(pink)

Letter	Code	Letter	Code	Letter	Code
A	• ━	H	• • • •	O	━ ━ ━
B	━ • • •	I	• •	R	• ━ •
C	━ • ━ •	K	━ • ━	S	• • •
E	•	L	• ━ • •	T	━
F	• • ━ •	M	━ ━	V	• • • ━
G	━ ━ •	N	━ •	X	━ • • ━

Word	Morse	Number
SHELL	• • • / • • • • / • / • ━ • • / • ━ • • /	505
HALLS	• • • • / • ━ / • ━ • • / • ━ • • / • • • /	515
SLICK	• • • / • ━ • • / • • / ━ • ━ • / ━ • ━ /	522
STING	• • • / ━ / • • / ━ • / ━ ━ • /	592
STEAK	• • • / ━ / • / • ━ / ━ • ━ /	582
STROBE	• • • / ━ / • ━ • / ━ ━ ━ / ━ • • • / • /	545
VECTOR	• • • ━ / • / ━ • ━ • / ━ / ━ ━ ━ / • ━ • /	595
FLICK	• • ━ • / • ━ • • / • • / ━ • ━ • / ━ • ━ /	555
LEAKS	• ━ • • / • / • ━ / ━ • ━ / • • • /	542
TRICK	━ / • ━ • / • • / ━ • ━ • / ━ • ━ /	532
BOMBS	━ • • • / ━ ━ ━ / ━ ━ / ━ • • • / • • • /	565
BOXES	━ • • • / ━ ━ ━ / ━ • • ━ / • / • • • /	535
BREAK	━ • • • / • ━ • / • / • ━ / ━ • ━ /	572
BRICK	━ • • • / • ━ • / • • / ━ • ━ • / ━ • ━ /	575
BEATS	━ • • • / • / • ━ / ━ / • • • /	600
BISTRO	━ • • • / • • / • • • / ━ / • ━ • / ━ ━ ━ /	552

START

... / -... / - 3.532 / .... 3.515 / ..-. 3.595 / ..-. 3.555 / .-.. 3.542

--- 3.600 / .-. 3.552 / .. 3.552

-- 3.565 / -..- 3.535 / . 3.572 / .. 3.575

.-.. 3.522 / - 3.505 / 3.505

. 3.582 / .. 3.592 / .-. 3.545

This is another method for solving a Morse Code module. Follow the flow chart for each letter revealed till there is only one option.

On the Subject of MEMORY

Info needed from diffuser:

- The initial number on the display
- Either the position or label of buttons
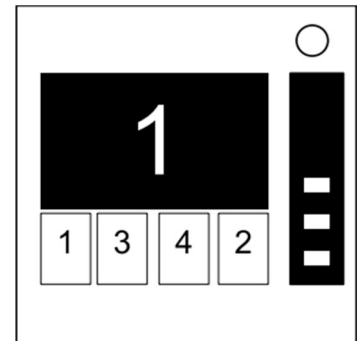
For each stage, take the display value and give the Diffuser an instruction. The Diffuser will need to provide the other piece of information to note down as you will need to refer back in later stages. A template for notes can be found in appendix.

Display	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Display
1	Position 2	Label "4"	Stage 2 Label	Stage 1 Position	Stage 1 Label	1
2	Position 2	Stage 1 Position	Stage 1 Label	Position 1	Stage 2 Label	2
3	Position 3	Position 1	Position 3	Stage 2 Position	Stage 4 Label	3
4	Position 4	Stage 1 Position	Label "4"	Stage 2 Position	Stage 3 Label	4

On the Subject of COMPLEX WIRES

Info needed from diffuser:

- Last Digit in Serial Number
- Parallel Port on the Bomb
- Number of Batteries
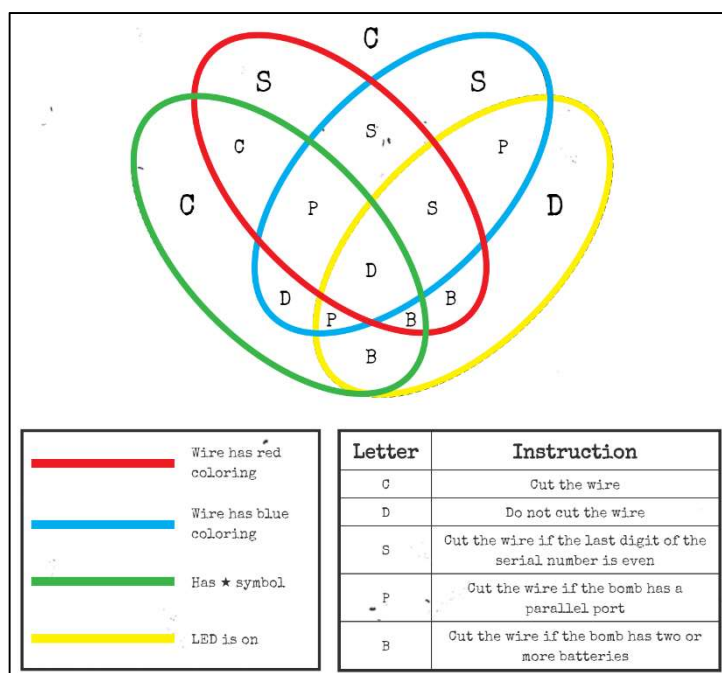- Colours, Star and LED status of wires
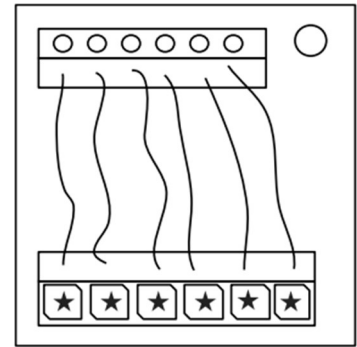
The Diffuser will call out the configuration of the wires. An efficient way to do this is to go across the line stating colours then noting the positions where a Star and/or a lit LED are.

If a wire is striped with White, only call out the other colour.

Red/White stripe = Red, Blue/White Stripe = Blue

	N/A	STAR ★	LED	STAR+LED
RED	S	C	B	B
BLUE	S	D	P	P
RED+**BLUE**	S	P	S	D
WHITE	C	C	D	B

C	CUT
D	DON'T CUT
S	LAST SERIAL # EVEN
P	PARALLEL PORT
B	2+ BATTERIES

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

Red — Wire has red coloring
Blue — Wire has blue coloring
Green — Has ★ symbol
Yellow — LED is on

Another method is to use the Venn Diagram, connecting all the relevant information to the correct section on the diagram.

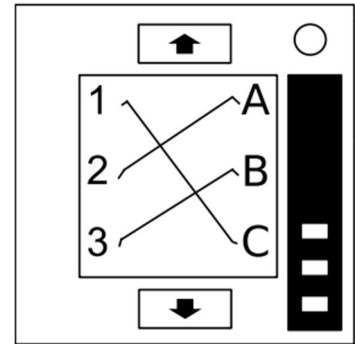If the status is B, P or S, cut if the conditions are met.

Once you have the whole set, instruct the Diffuser to cut.

A template for notes can be found in the Appendix.

On the Subject of WIRE SEQUENCES

Info needed from diffuser:

- List of wires in the form of "Colour, End Connection"

The Diffuser go down the list of wires in order of the left number then dictate to Expert what colour wire and where it goes to.

The Expert then replies CUT if it corresponds to the table depending on how many of that colour have appeared before.

Expert can cover up the columns as each appearance occurs.

Appearance	RED	BLUE	BLACK
1	C	B	ANY
2	B	A or C	A or C
3	A	B	B
4	A or C	A	A or C
5	B	B	B
6	A or C	B or C	B or C
7	ANY	C	A or B
8	A or B	A or C	C
9	B	A	C
	RED	BLUE	BLACK

Efficient communication would look like this:

Diffuser	Expert
RED C	CUT
BLACK A	CUT
RED A	LEAVE

On the Subject of MAZES

Info needed from diffuser:

- Position of ONE Circle ◎
- Position of Player (White Square) ☐
- Position of Goal (Red Triangle) ▲
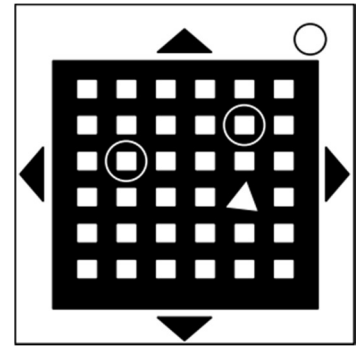
Label the map in a grid, A-F left to right and 1-6 Top to bottom.

Using the Circle coordinate you can determine which map is being used. Locate the player and the goal then give singular instructions to direct them around the maze.

Point	Maze
A1	4
A2	1
A4	4
A5	9
B1	7
B4	2
B6	7
C2	9
C4	8
C5	6
D1	8
D4	3
D6	5
E1	6
E2	2
E3	5
F3	1
F4	3

Maze 1: A2 or F3
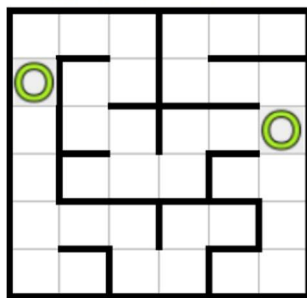
Maze 2: B4 or E2
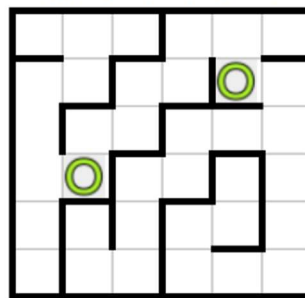
Maze 3: D4 or F4
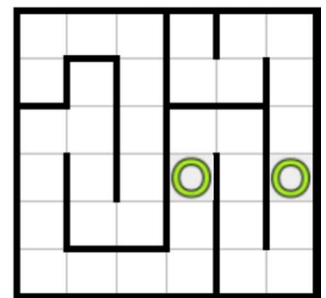
Maze 4; A1 or A4
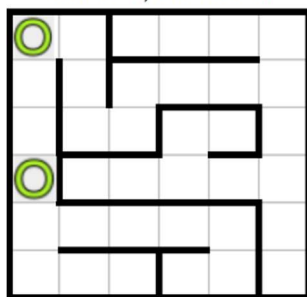
Maze 5: E3 or D6
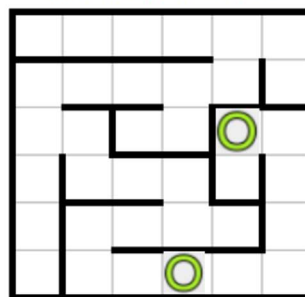
Maze 6: E1 or C5

Maze 7: B1 or B6
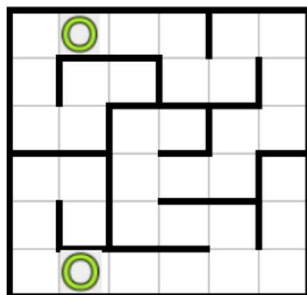
Maze 8: D1 or C4
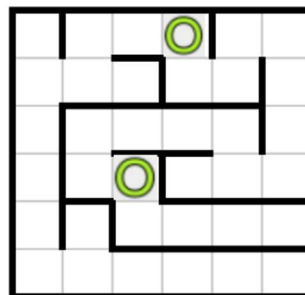
Maze 9: C2 or A5
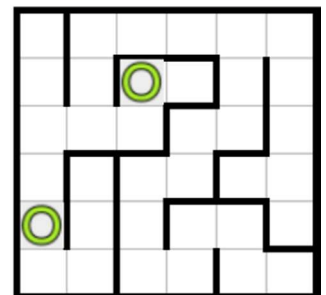
On the Subject of PASSWORDS

Info needed from diffuser:

- All letters in 1st, 3rd and 4th position
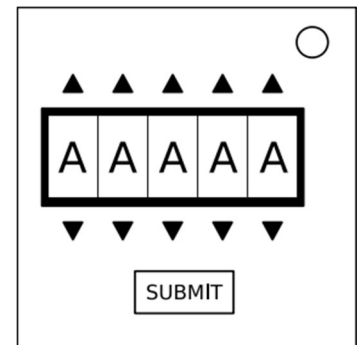
Note down all the letters in position 1, 3 and 4 from Password.

Check match ups with 3 and 4 Letters highlighted. If T, I and N match up. Ask Diffuser to search for both THING and THINK.

Possible Letters with relevant highlighted

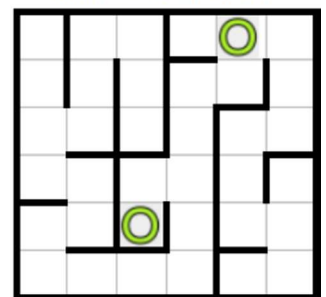| 1ST	2ND	3RD	4TH	5TH
A	A	A	A	D
B	B	E	C	E
C	E	G	D	G
E	F	H	E	H
F	G	I	G	K
G	H	L	H	L
H	I	O	I	N
L	L	R	L	R
N	M	T	N	T
O	O	U	O	W
P	P	V	R	Y
R	T		S	
S	V		T	
T			U	
W				

P	L	A	C	E
P	L	A	N	T
T	H	E	I	R
T	H	E	R	E
T	H	E	S	E

T	H	I	N	G
T	H	I	N	K

A	B	O	U	T
A	F	T	E	R
A	G	A	I	N
B	E	L	O	W
C	O	U	L	D
E	V	E	R	Y
F	I	R	S	T
F	O	U	N	D
G	R	E	A	T
H	O	U	S	E
L	A	R	G	E
L	E	A	R	N
N	E	V	E	R
O	T	H	E	R

P	O	I	N	T
R	I	G	H	T
S	M	A	L	L
S	O	U	N	D
S	P	E	L	L
S	T	I	L	L
S	T	U	D	Y
T	H	R	E	E
W	A	T	E	R
W	H	E	R	E
W	H	I	C	H
W	O	R	L	D
W	O	U	L	D
W	R	I	T	E

If not, check all words with 2 highlighted, using Letter 4 to confirm word then instruct Diffuser.

On the Subject of APPENDICES

Here is a template for Memory and Complex Wires Modules

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

Stage	1	2	3	4	5
Position			N/A	N/A	N/A
Label					N/A

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						

	1	2	3	4	5	6
COLOUR						
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	1	2	3	4	5	6
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	1	2	3	4	5	6
COLOUR						
STAR ★						
LED						
OUTPUT						
2nd OUTPUT						