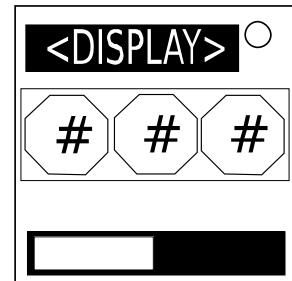


The Subject of Bamboozling Time Keeper

Screw Ticc tocc, here's the good stuff.

This module consists of a screen displaying various phrases; 3 buttons revealed by a sliding hatch, each with a digit on the button; and a stage indicator. The defuser can switch between the 2 stages by pressing the respective half at the bottom indicator. A flashing yellow bar represents the current stage and a green bar represents a completed stage. To complete a stage, the defuser must hold or tap the button at a very specific time and release the button correctly. Complete both stages to disarm the module. A strike incurred from this module will NOT reset the module.



For All Stages

Each screen will display 3-7 parts of the display ranging from a set of possible values.

All displays follow these rules:

1. All displays will ALWAYS start with a phrase from Table Start in white.
2. The last phrase will always read "POINT ZERO" in white.
3. The phrase "HUNDRED" will ALWAYS be white.
4. All other phrases will be colored in one of the 8 possible colors.

Table Start

Undefinable Amount			Definable Amount		
SOME NUMBERS	THE NUMBERS	NUMBERS	TWO NUMBERS	THREE NUMBERS	FOUR NUMBERS
SOME NUMBER(S)	THE NUMBER(S)	NUMBER(S)	2 NUMBERS	3 NUMBERS	4 NUMBERS
SOME NUMBER	THE NUMBER	NUMBER	ONE NUMBER	A NUMBER	1 NUMBER

Please contact Fang#1217 on Discord if you have any suggestions.

Process for All Stages:

Wow, such math

Stages 1 and 2 are referred by the left and right halves of the stage indicator.
Remove decimals after every steps.

If the final value after "END" is < 10 , mod 16.

If B_2 is green or magenta, correct button $\rightarrow B_2$.

Otherwise, if all 3 buttons have the same color, correct button = $B_{\text{stage number}}$.

1. Get the starting value.
2. Subtract $(SN_1 + SN_2 + SN_3)$, add $[4 * (\text{Ports} + \text{Port Plates})]$.
3. Multiply abs ("Forget" - SE Mods). (min 1, FTAs/UStores = 5, FMWs/Stores = 2)
4. Multiply 1.5 if Simon Stops present, otherwise divide by 2.
5. If D_2 is not red AND red button present, add the starting value from the other stage.
6. Add ("RT Controlled Modules" * \times batteries).
7. If within 5 of 24n and 49n, END.
8. Add DD that the bomb was started on.
9. Add/Subtract 20 for each lit/unlit vanilla indicator.
10. Starting value $>/< 5000$, add/multiply 3 Stages Modules (1 minimum)†.
11. Subtract $(6 * \text{Modded Ports})$.

Process for Stage 1:

12. Use the table on the next page to modify the current value or to modify the correct button.
 - Use D_2, D_3 , etc. until all parts are used or have reached "STOP."
 - Don't use the part if the phrase is not on the table.
13. Starting phrase \rightarrow definable, add first letter on each unlit indicator.
14. "HUNDRED" present, divide by 100.
15. "Simon's Stages" present AND "Übermodule" not present, END.
16. Add $(99 \times \text{Needy Modules})$.
17. Starting phrase contains () or #, perform Step 13 with each buttons.
18. If < 0 , Multiply -6.
19. Add $(SN_4 + SN_5 + SN_6)$.
20. END

* See Appendix RT Controlled Modules for a list of RT controlled modules.

† See Appendix 3 Stage Modules for a list of 3 stage modules.

Process for Stage 2:

12. Starting phrase → definable, take D_2 and refer to table. **HOWEVER:**
If the operator is "B#" / "STOP", multiply by (#+1) / divide by 17.
13. Starting phrase → SOME NUMBER / THE NUMBER / NUMBER / ONE NUMBER / A NUMBER / 1 NUMBER,
perform step 12 except $D_{\text{Last} - 1}$, unless it is "HUNDRED", multiply by 100
instead.
14. Starting phrase contains () or a #, perform the operation in cell:
($[D_{2S1} + D_{2S2}] \% 56$, $7 - [B_{2S2}]$) and ($\text{abs}[D_{2S1} - D_{2S2}]$, $[B_{1S2} + B_{3S2}] \% 8$).

If the B_1 and $B_3 = D_2$ color, but the B_2 is a different color, change the correct button to be B_2 .

15. If green / magenta rule is applied to S1 / S2 / both / neither, +25 / +150 / +25 / -250.
16. Subtract ($10 \times$ Kristy's Modules)
17. If < 0, multiply by -65 and END.
18. If sum of letters in color names from each button > 12, divide by sum of letters in color names of non-white parts. If 0, double instead.
19. If Two Factors present, add ($50 \times$ number of Two Factors) and END.

Change the correct button to the button with the most letters in the name of the button's color, unless it's tie or RT sensitive module present.

20. If there are 7 parts, divide by 7.
21. Divide by 3.
22. Add ($10 \times$ Indicators that share with "SPEAKINGEVIL").
23. END

On the next page's table:

- If the cell contains an operator and a number, you must preform the given operation with that number and your current value. Drop reminders and decimals after each division operation.
- If the cell is "B#", the correct button is changed to where "#" is the position of the correct button starting from the left. This does not affect your current value unless otherwise stated.
- A "STOP" will stop you from reading this table. This seems obvious enough unless otherwise stated.

Color ⇒		RED	YELLOW	GREEN	CYAN	BLUE	MAGENTA	WHITE	BLACK	↓ Label ↓	
↓ Label	Id	0	1	2	3	4	5	6	7	Id	Label ↓
0	0	STOP	*5	+50	/2	-25	B3	B1	B2	0	0
1	1	+1	STOP	-1	B2	B1	*3	/3	B3	1	1
2	2	-10	+25	STOP	-25	+66	-512	+12	/5	2	2
3	3	B1	/2	*2	STOP	B2	/9	*6	B3	3	3
4	4	B3	B2	B1	B2	STOP	B3	B1	B2	4	4
5	5	+559	-58	+25	-48	+99	STOP	-454	*5	5	5
6	6	*3	/3	*6	/6	+9	-6	STOP	-3	6	6
7	7	B1	+158	B2	-264	*56	/7	B3	STOP	7	7
8	8	-65	+46	-415	+48	-56	-99	+284	-54	8	8
9	9	B1	B1	B1	B1	B1	B1	B1	B1	9	9
10	10	*10	/10	*10	/10	*10	/10	-100	-100	10	10
11	11	+84	-46	+94	+54	+49	+21	+86	*11	11	11
12	12	/4	*3	/3	*4	/2	*2	/6	*6	12	12
13	13	+485	+84	+95	+24	-48	-78	-459	-101	13	13
14	14	+459	-485	-458	+478	+0	-45	*5	/5	14	14
15	15	+45	-90	+30	+120	-150	+15	+15	+15	15	15
16	16	*2	+256	-32	+64	-64	+32	-256	/2	16	16
17	17	+456	-98	-485	+741	-46	+155	-45	+485	17	17
18	18	+45	*5	/9	+45	-5	+46	+78	-87	18	18
19	19	B3	B3	B3	B3	B3	B3	B3	B3	19	19
20	20	STOP	-59	/3	+55	-20	+23	+59	-41	20	20
30	21	+45	STOP	-89	*7	/5	+48	+89	-78	21	30
40	22	-512	+126	STOP	*2	/5	*5	/2	+155	22	40
50	23	*5	/5	*10	STOP	/10	+1	-151	+150	23	50
60	24	*5	*12	-120	-60	STOP	+180	/5	/12	24	60
70	25	*2	*5	*7	+21	/2	STOP	/5	/7	25	70
80	26	*2	/2	*2	/2	*2	/2	STOP	+40	26	80
90	27	B1	B2	B3	B3	B2	B3	B1	STOP	27	90
		0	1	2	3	4	5	6	7		
		RED	YELLOW	GREEN	CYAN	BLUE	MAGENTA	WHITE	BLACK		

Color ⇒		RED	YELLOW	GREEN	CYAN	BLUE	MAGENTA	WHITE	BLACK	↓ Label	
↓ Label	Id	0	1	2	3	4	5	6	7	Id	Label ↓
ZERO	28	/5	-50	*2	+25	B1	B2	B3	STOP	28	ZERO
ONE	29	-1	+1	B3	B2	/3	*3	STOP	B1	29	ONE
TWO	30	+10	-25	+25	-66	+512	STOP	-12	*5	30	TWO
THREE	31	B3	*2	/2	B1	STOP	*9	/6	B2	31	THREE
FOUR	32	*4	/4	+4	STOP	-4	*4	/4	+0	32	FOUR
FIVE	33	-559	+58	STOP	-25	+48	-99	+454	/5	33	FIVE
SIX	34	+3	STOP	/3	*3	/6	*6	-9	+6	34	SIX
SEVEN	35	STOP	B3	-158	B1	+264	/56	*7	B2	35	SEVEN
EIGHT	36	+65	-46	+415	-48	+56	+99	-284	+54	36	EIGHT
NINE	37	B2	B2	B2	B2	B2	B2	B2	B2	37	NINE
TEN	38	/10	*10	/10	*10	/10	*10	+100	+100	38	TEN
ELEVEN	39	-84	+46	-94	-54	-49	-21	-86	/11	39	ELEVEN
TWELVE	40	+4	-3	+3	-4	+2	-2	-6	+6	40	TWELVE
THIRTEEN	41	-485	-84	-95	-24	+48	+78	+459	+101	41	THIRTEEN
FOURTEEN	42	-459	+485	+458	-478	-0	+45	/5	*5	42	FOURTEEN
FIFTEEN	43	-45	+90	-30	-120	+150	-15	-15	-15	43	FIFTEEN
SIXTEEN	44	/2	-256	+32	-64	+64	-32	+256	*2	44	SIXTEEN
SEVENTEEN	45	-456	+98	+485	-741	+46	-155	+45	-485	45	SEVENTEEN
EIGHTEEN	46	-45	/5	*9	-45	+5	-46	-78	+87	46	EIGHTEEN
NINETEEN	47	+0	-25	+25	-25	+25	-25	+25	-0	47	NINETEEN
TWENTY	48	*2	/2	*5	/5	*10	/10	+20	STOP	48	TWENTY
THIRTY	49	+330	-330	+90	-90	/3	*3	STOP	/10	49	THIRTY
FOURTY	50	+512	-126	/2	*5	/5	STOP	*2	-155	50	FOURTY
FIFTY	51	/5	*5	/10	*10	STOP	-1	+151	-150	51	FIFTY
SIXTY	52	/5	/12	+120	STOP	+60	-180	*5	*12	52	SIXTY
SEVENTY	53	/2	/5	STOP	/7	-21	*2	*5	*7	53	SEVENTY
EIGHTY	54	/2	STOP	*2	/2	*2	/2	*2	-40	54	EIGHTY
NINETY	55	STOP	B1	B3	B2	B1	B3	B2	B1	55	NINETY
		0	1	2	3	4	5	6	7		
		RED	YELLOW	GREEN	CYAN	BLUE	MAGENTA	WHITE	BLACK		

The Scale Factor

Now that you have made your final value for both stages, you must figure out a set of times that are calculated in the following format: $F_v \times X^N$, where N is any integer, F_v is the final value for that stage. To figure out X for each stage, you must use the table underneath. All operators with an "=" denotes to set the value as such. **Drop all modifications if the "=" is satisfied.** Drop remainders after each "/" operation if present. Note that each starting phrase only refers to the starting phrase on the given stage, not the other stages. Perform each operator from top to bottom.

Lit BOB, Lit FRK, 4 batteries in 2 holders: =2			
Stage 1		Stage 2	
Batteries	-1/2batt	Battery Holders	-1/bh
FT is present	+1	FN is present	+1
4 or more SN Digits	+3	4 or more SN Letters	+3
TK is present	+2	TTK is present	+2
Starting Phrase is not definable	+2	Starting Phrase is definable	+2
FMN is present	+1	FIN is NOT present	+1
This stage's starting value < 5000: +1			
The bomb's starting time is 30:00 or greater: +2			
Exactly 3 SN Letters and 3 Digits: +2			
This stage's final value ≥ 10000: /2			

After using the tables, set X to 2 if $X < 2$ or X to 5 if $X > 5$.

The Override

If one of the stage's starting values is 2424, the other stage's starting value is 4949, an indicator labeled SIG is present, and a cyan button is present on both stages, you are blessed by Sig, a Puyo Puyo character whose obsession is with bugs. For both stages, the final value is overridden to 15 seconds, with the scale factor of 2, and the correct button is the leftmost cyan button, which must be tapped instead. If the defuser starts the bomb on the 9th of April, the 4th of February, or the 16th of June something special can happen.



Determining the Correct Button

Refer to these for each stage if the correct button is not determined.
Use the first true row that apply.

1. Final value 0 - 9999 inclusive \Rightarrow left.
2. Parallel and 1 magenta button is present \Rightarrow that magenta button.
3. Stereo RCA and 1 white and 1 red button is present \Rightarrow neither.
4. No black parts and 1 black button is present \Rightarrow that button.
5. No shared colors between buttons and phrases (excluding white) \Rightarrow right.
6. All phrases are white, and exactly 1 button label is not present in numerical form or digit form \Rightarrow that button.
7. Buttons are RGB, in any order \Rightarrow Blue
8. All button colors are either RYGBKW \Rightarrow middle.
9. Otherwise take your final value and $\% 3$, then + 1, count from left to right if you are on stage 1, right to left otherwise.

Determining the State of the Correct Button

Taps can substitute holds at a cost of a strike, if the bomb's timer is < 120s.
Error margin are $\pm 5s$ on the bomb's timer.

1. If TVAB present / ≥ 1 Needy Modules, tap.
2. Both of the other labels are present in the display, hold.
3. Correct button's label is present in the display, tap.
4. Button labels are sorted from greatest to least or least to greatest, hold.
5. Other button's labels' positive difference is within 2 of the correct button's label, tap.
6. Correct button label = LSD of the sum of the other 2 button's labels, hold.
7. Correct button label = LSD of the product of the other 2 button's labels, tap.
8. Otherwise, hold.

Holding The Button:

Keep going, and good luck!

Bomb timer will be abbreviated as BT, Display timer will be abbreviated as DT.
S in the middle refers to seconds timer (e.g. BST and DST).

If the current condition gives a value that is impossible to reach, skip to the next "Otherwise," when necessary.

1. 1/2 button(s) flashing 4 same color in a row.
2. 2FA Present.
3. 1/2 button(s) transmitting Morse.
4. Otherwise, count the number of flashes for each flashing button.

Case Very Rare: 1/2 button(s) flashing 4 same color in a row.

Refer to the top table if both is flashing 4 in a row, otherwise the bottom table.

Leftmost	Rightmost	Release Condition
Red	Red	DT have at least 2 distant digits in common with BT
	Green	DST shows a product of 2 consecutive numbers
	Blue	BST shows a product of 2 consecutive numbers
Green	Red	≥ 1 digit from the local time is shown from BT (not 0)
	Green	The last digit from both DST and BST are within 1 from each other (0/9 pairs are considered within 1 apart)
	Blue	≥ 1 digit from the local time is shown from DT (not 0)
Blue	Red	04 or 40 on DST
	Green	04 or 40 on BST
	Blue	0 and 4 NOT present on both DST and BST

Color	Position of Flashing Button		
	Left	Middle	Right
Red	BST not in SN	DST shows 4/8/15/16/23/42	≥ 1 BST in SN
Green	Sum of BST = prime	BST match	Sum of BST \neq prime
Blue	Sum of DST = prime	BST shows 4/8/15/16/23/42	DST not in SN

Case Probably Never: 2FA is present.

- If 1 2FA, release when the DST contains ≥ 1 digit from LD in 2FA.
- If 2 2FA, release when the BST contains ≥ 1 digit from the average of the 2FA, % 10, rounded down.
Unless the Two Factors are equal, go to the next "Otherwise."
- Otherwise, release when the BT and DT combined have ≥ 4 digits in the highest 2FA.
Unless the highest Two Factor on the bomb has 3 or fewer distant digits, go to the next "Otherwise."

Case Common: 1/2 button(s) transmitting Morse.

- Initial value = Alphabetical position of transmitted message.
- Modify that initial value based on Table Irregular Flashes, one at a time.

Color of the Given Flash	Position of the Flash			
	Flashed 1st	Flashed 2nd	Flashed 3rd	Flashed 4th
Red	+#Mods	+DR #Mods	-#Mods	-DR #Mods
Green	+MM (date)	+DR current	-MM (date)	-#Digits in current
Blue	+#Ports	-DR current	-#Ports	+#Digits in current

- Take the last digit of the absolute value and refer the table below.

Values Used	Release Condition
1	≥ 1 BST shows THAT value
2, 1 value is a 0	Non-zero not present on DST
2, identical and NOT 0	Value not present on BST
2, both values are 0	BST = sum of the base 36 digits flashed in Morse, % 60
2, 0 or 2 vowels	BST = product of the 2 values
2, Otherwise	DST = product of the 2 values

Otherwise:

Count the number of flashes for each flashing button and use the next table.

	Red	Green	Blue
Left Button is flashing	1	2	3
Middle Button is flashing	2	3	1
Right Button is flashing	3	1	2

Add all of these valued flashes up for each button and refer the next table:

Value % 5	0	1	2	3	4
Release Condition (BT): Total time =	2n	3n	5n	7n	11n

Both conditions must be satisfied from the calculated values on each of the flashing buttons. However, if the values after modulo 5 are the same, release the button when the total time remaining in seconds is a prime or < 5. You might need [Prime Checker \(<https://ktane.timwi.de/HTML/Prime%20Checker.html>\)](https://ktane.timwi.de/HTML/Prime%20Checker.html) to assist you with this.

Appendix: Extended Terminology

RT Controlled: An RT Controlled module is a module that has a built-in internal timer that only starts ticking as soon as the user has finished prepping the module and has pressed the "start" button. Notable RT controlled modules are The Wire, Module Homework, Burger Alarm, Burglar Alarm, Fast Math, and The Stopwatch. If the module requires holding for a specific amount of time to disarm itself, the bomb's timer, or start its internal timer immediately as the bomb loads or arms itself, these modules are NOT RT controlled modules. Needies are also NOT RT controlled modules since they activate by time, strikes, or upon solving a few modules.

RT Sensitive: An RT Sensitive module is a module that has a built-in internal timer that starts ticking as soon as the bomb starts or as the bomb loads. Notable RT sensitive modules are The Swan, Tax Returns, and The Very Annoying Button. Needies are also NOT RT sensitive modules since they activate randomly by time, strikes, or upon solving a few modules. "RT strike" is said to determine if the strike was based on running out of internal time set up by the module. An RT strike can repeat multiple times if the RT sensitive module is left unhandled for too long. Some RT sensitive modules may not strike but instead reset which makes the defuser have to reread the contents in the module again.

Appendix: SpeakingEvil's Modules

Appendix: List of 3 Stage Modules

Appendix: Kritzy's Modules

Appendix: List of RT Controlled Modules

Appendix: RT Sensitive Modules

Please refer to the original manual

(<https://ktane.timwi.de/HTML/Bamboozling%20Time%20Keeper.html>) for the latest list.

Appendix: Morse Code

When you can't condense this.

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

U	● ● —
V	● ● ● —
W	● — —
X	— ● ● —
Y	— ● — —
Z	— — ● ●

1	● — — — —
2	● ● — — —
3	● ● ● — —
4	● ● ● ● —
5	● ● ● ● ●
6	— ● ● ● ●
7	— — — ● ● ●
8	— — — — ● ●
9	— — — — — ●
0	— — — — —