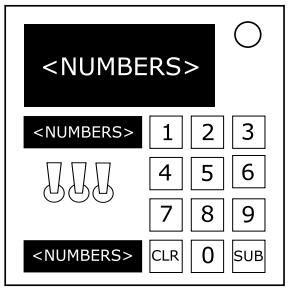
On the Subject of Password Destroyer



Who said that 7 digit passwords are weak?

A password is required to be entered.

The password required to be entered is a 7 digit PIN, using only the numbers 0-9.

Due to the nature of it being a weak password, some measures are taken in order to preserve its security.

As a result of that, the password changes **every second.**

The module is designed strictly to block unauthorized access, to make sure it is **never** bypassed.

Preface

This module contains three displays, a number pad, a clear (CLR) button, a submit (SUB) button.

The displays show the:-

- Current number, and input entered (if any).
  (top display)
- Two Factor Identification and current local time.
  (middle-left display)
- Elapsed time of the module.
  (bottom-left display)

If a display shows multiple pieces of information, the display will cycle between the pieces of information every 5 seconds.

The clear button clears the input (obviously) and the submit button submits the input (obviously too).

Section I: Top Display

The display refreshes every second and will show the current raw value (R_v).

Section II: Middle Left Display

The middle display cycles between Two Factor Authentification Service Two (2FAST™), and current local time.

Section II Subsection I: Two Factor Authentification Service Two (2FAST™)

Remember it? It's back.

The display shows a six digit number for two factor authentication. The number refreshes every 120 seconds, for security.

The six bars along the left of the display indicates the duration before the 2FAST™ resets.

Section II Subsection II: Current Local Time

The display will show the current local time, according to desktop.

Section III: Bottom Left Display

This display indicates the elapsed time since the module has begun.

Thus, it counts up from 0 seconds after the bomb activates.

Section IV: Pre-Modifications

The raw value is calculated with the formula below:

$$R_v = [S_v + (I_f \times t)] \bmod 10{,}000{,}000$$

Where:
S_v = The starting value when the numbers are generated
I_f = The increase factor, which is a constant
t = Elapsed time (in seconds)

Section V: The Modifications

Take all serial number characters, treat them as base-36 characters and convert them into decimals.

Multiply all six numbers together to get the **Bomb Serial Number (BSN)**, if at any point you are trying to multiply by 0, **multiply by 1 instead.**

Take all the digits of S_v (ignore 0s), and multiply the digits together to get the **Module Serial Number (MSN).**

Obtain two numbers (TFA_1 and TFA_2) from the original 2FAST™ using the formula below:

$$TFA_1 = \lfloor \text{2FAST}^{\text{™}} / 1{,}000 \rfloor - 100 \quad || \quad TFA_2 = \text{Digital root of } (\text{2FAST}^{\text{™}} \bmod 1{,}000)$$

To prevent overcomplication on how to obtain the calculated value, C_v, the method is compressed into a single formula:

$$C_v = R_v + TFA_1 * BSN + TFA_2 * MSN + t$$

Section VI: Final switches position

Using the current local date and time^, refer to tables below to determine which switch is required to be in down position.

Day\Month					01	02	03	04	05	06	07	08	09	10	11	12
01	08	15	22	29	1	2	3	2	3	2	1	3	1	1	1	2
02	09	16	23	30	2	2	1	1	1	2	3	1	2	3	3	2
03	10	17	24	31	2	1	3	2	1	2	2	3	3	3	1	3
04	11	18	25		1	2	2	3	3	2	3	2	1	1	2	3
05	12	19	26		1	1	3	3	3	3	1	2	2	1	1	3
06	13	20	27		1	1	3	2	2	2	1	3	1	1	3	2
07	14	21	28		1	1	1	3	1	2	1	2	1	3	2	3

Minute\Hour			00	01	02	03	04	05	06	07	08	09	10	11
			12	13	14	15	16	17	18	19	20	21	22	23
00	20	40	1	2	1	2	1	2	3	1	2	3	2	1
01	21	41	3	1	2	3	1	1	2	1	1	2	3	2
02	22	42	1	2	1	3	3	3	2	2	2	1	2	3
03	23	43	3	1	2	3	1	2	1	2	3	3	3	1
04	24	44	2	2	2	2	1	3	2	2	2	3	1	3
05	25	45	2	2	1	3	1	3	3	3	2	1	3	2
06	26	46	1	2	3	3	1	2	3	3	1	3	3	2
07	27	47	3	1	3	1	1	1	3	2	1	1	3	1
08	28	48	3	3	2	1	3	2	1	1	1	3	1	1
09	29	49	2	2	2	2	3	2	3	2	3	2	1	3
10	30	50	3	2	2	2	3	1	1	3	2	3	2	3
11	31	51	1	3	2	2	3	1	3	3	3	3	1	1
12	32	52	3	2	1	2	3	1	2	2	2	3	2	2
13	33	53	2	3	3	2	3	1	3	1	1	3	3	2
14	34	54	1	1	2	2	3	3	3	2	2	2	2	2
15	35	55	1	2	1	3	1	2	1	2	3	1	3	2
16	36	56	3	1	1	1	3	2	1	3	2	2	3	2
17	37	57	3	1	2	1	2	1	3	3	3	3	1	2
18	38	58	2	3	3	3	3	3	3	2	1	2	1	2
19	39	59	1	3	1	1	1	1	3	2	1	2	3	2

^Calculated when "Submit" button is pressed.

Section VII: Final Modifications

Take the ratio of solved modules to number of solvable modules^ and multiply it by the final calculated value.

Take the value calculated at this point, C_v and refer to the equation below:

$$\textbf{Final Value, } F_v = | C_v \times \textbf{Solved Percentage*} | \% 10{,}000{,}000$$

*Solved Percentage is defined as percentage of solve modules over total modules, which is equal to max $\{[^{(\text{number of solved modules})}/_{(\text{number of modules})} \times 100\%], 1\%\}$.

Section VIII: Upon Submission

Prepend zeros upon submission.
To further improve the security, password can be only be submitted when the last digit of the elapsed time is equal to the first rule that applies in the table below:

Last digit	Condition
0	The last digit of the serial number is zero.
1	2FAST™ is a prime number.
2	Module **The Twin** is present.
3	2FAST™ is a multiple of 3.
4	There are more than 4 batteries on the bomb.
5	2FAST™ is divisible by 5.
6	The percentage of solved modules is over 60%.
7	There are any indicators that share a letter with "SEVEN".
8	There are more than 8 ports on the bomb.
9	(Always true)

Submit the correct password on correct time to solve the module. When there are at least one button was pressed, the middle left screen will display "INPUT".

If incorrect input was submitted, the module will give a strike, and the module will **reset completely.**
The module will also strike and reset when too many digits were submitted.

^Calculated when "Submit" button is pressed.

Section IX: Upon Reset

If there are one or more resets, the middle left display cycles an additional information in red.

The display will indicate when did the new info was generated on.

Section X: Additional information

The module will full reset every 30 minutes.