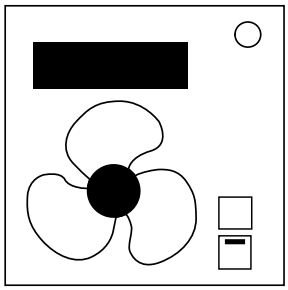
On the Subject of The Fan



I'm already a huge fan...

- The module can be stationary, spinning clockwise, or spinning counter-clockwise.
- The bottom button will toggle the fan's power.
- The top button will toggle the fan's direction.
- The direction of the fan can only be changed while the power is on.
- If the display shows the word "Power", pressing the power button twice quickly will defuse the module.
- Pressing the power button twice quickly when the display is not blank, will result in a strike.
- Solving a module with the fan in an incorrect state will result in a strike.
- The text on the display will change after solving a module.

Determining the Correct Fan State

The correct state of the fan for each module solve is determined as follows:

Step 1: Calculate Letter x

- Start with the number of solved modules.
- Add the sum of the digits in the serial number.
- Subtract the sum of the letters in the serial number (A = 1, Z = 26).
- Add or subtract 26 until the result is between 1 and 26 inclusive.
- Convert this number to a letter and remember it as **x**.

Step 2: Calculate Letter y

- Sum all digits and letters (A = 1, Z = 26) in the name of the module.
- Subtract all digits and letters (A = 1, Z = 26) on the fan's display screen.
- Add or subtract 26 until the result is between 1 and 26 inclusive.
- Convert this number to a letter and remember it as **y**.

Step 3: Determine Fan Behavior

- If both **x** and **y** are vowels (A, E, I, O, U), the fan must be **stationary**.
- Otherwise, if both **x** and **y** are present in the name of the module being solved, the fan must be spinning **clockwise**.
- Otherwise, if both **x** and **y** are present in the serial number, the fan must be spinning **counter-clockwise**.
- Otherwise, the state of the fan can be found by subtracting 3 from the sum of **x** and **y** until the value is -1 (counter-clockwise), 0 (stationary), or 1 (clockwise).

Appendix 1 - Fans