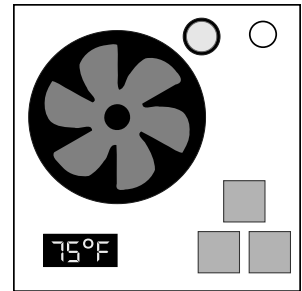# On the Subject of Thermoregulation

The fan is broken, and you are our finest electrical engineer...
but YOU press buttons for a living, not soldering!

On the module is a fan, a temperature display, a LED, and three colored buttons. The temperature will continuously rise while the fan is off. Press the buttons in a specific sequence to repair and restart the fan.

Overheating

- The bomb will always start at 75°F.
- The bomb will overheat if the temperature hits 250°F, and the module will issue 99 strikes.
- The defuser has 50% of the bomb's total time to fix the fan before overheating.
- If the bomb has a total time of 9 minutes or less, overheating will not occur, and the module will remain at 75°F.

Fan

The fan is pressable. Do **NOT** press the fan button until you have entered the correct button sequence. Pressing the fan prematurely will cause the fan to ramp up uncontrollably, resulting in a strike.

Calculating Sequence Number

To solve the module, you need to calculate the sequence of buttons to press to fix the fan. Start making a number with the following:-

- Multiply the number of batteries by the number of indicators.
- Multiply the number of modules by the number of ports.
- Add these two, this is A.
- Add the sum of all digits in the serial number, this is B.
- Add a value based on the color of the LED on the module, this is C.
    - Green = 0
    - Amber = 1
    - Purple = 2
- Add A+B+C.
- Modulo this result by 10. Continue to next page.

Converting to Button Sequence

Using the previous number you got, do these calculations for each button press:-
(round down in all division)

- First button: sequence number mod 3
- Second button: sequence number / 3 mod 3
- Third button: sequence number / 9 mod 3

Using the numbers after the calculations, attach them to a button:-
0 = Red, 1 = Yellow, 2 = Blue

Solve the module by pressing the three buttons in sequence, then finally pressing the fan.