## On the Subject of The Orange Button

Orange you glad this is only one stage?

• Determine the <u>ratio</u> between the time it takes the eight LEDs to make a full rotation and the time between changes to the LEDs.



- The exact time intervals can be any fractional amount of seconds, so measuring time in seconds is not going to work. Find a way to determine the <u>ratio</u> rather than the timing.
- This ratio is always a fraction whose numerator and denominator, when expressed in lowest terms, are between 1 and 9.
- If the LEDs are moving clockwise, hold the button when the last digit of the bomb's countdown timer is equal to the numerator, and release it when the last digit is equal to the denominator.
- If the LEDs are moving counter-clockwise, do the same but with the numerator and denominator swapped.