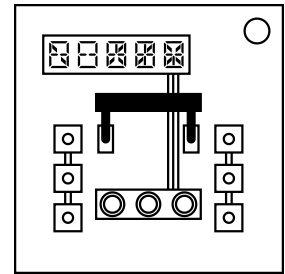# On the Subject of The Generator

Big, chunky knife switch go kerchunk 0w0

The module contains a display above a knife switch with 3 small buttons on the left and right side, each containing a light. These are interpreted as a 6 digit binary code, and change upon each non-ignored module solve

IMPORTANT: Save each stage's button light pattern & final code. Do not overwrite previous stages. Do not calculate stage 0.

- If you are on stage 1, your BASE CODE is the initial light pattern (AKA Stage 0). Otherwise, use the final code from the previous stage
- Your CURRENT CODE is the light pattern shown for each stage

For each stage, perform the following operations between the two codes:

1. If the stage is <u>even</u>, invert the BASE.
2. **If the most recently solved module's first letter/number is PRIME (A = 1) //** <u>NAND</u> the CURRENT and BASE sets, then replace BASE.
   Else if the number of lit LEDs displayed are 4 or more // <u>AND</u> and replace CURRENT.
   Else // <u>OR</u> and replace CURRENT.
3. Always **XOR** and replace BASE.
4. <u>If your BASE is all 1s</u>, replace BASE with CURRENT.
   <u>Else if your BASE is all 0s</u>, replace BASE with INVERTED CURRENT.

Your BASE will become the final code for that stage. Stages are not submitted until the end

Once the generator decides enough stages have passed, it'll make some noise and enter SUBMIT MODE.

- Submit the initial pattern (Stage 0) when the display says READY. Otherwise, Submit the displayed stage's final code
- Submitting the wrong set will incur a strike:
  - Incorrect OFF lights will turn yellow
  - Incorrect ON lights will turn red
- Push the buttons to toggle the lights // Pull the switch to submit a set

```
_____NAND__AND__OR___XOR
1/0 = 1 // 0 // 1 // 1
0/1 = 1 // 0 // 1 // 1
1/1 = 0 // 1 // 1 // 0
0/0 = 1 // 0 // 0 // 0
```