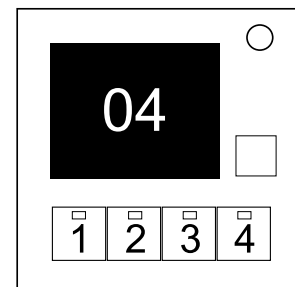# On the Subject of Mad Memory

Bonus points to any team who can disarm this without writing everything down.

The following table shows what the <u>type</u> and <u>value</u> of each display is.

		Type			
		A	B	C	D
Value	1	1	01	ONE	WON
	2	2	02	TWO	TOO
	3	3	03	THREE	TREE
	4	4	04	FOUR	FOR

Stage 1:

- If the display is type A, select the button in the 3rd position.

- Otherwise, if the display is type B, select the button in the 2nd position.

- Otherwise, if the display is type C, select the button labeled "2".

- Otherwise, if the display is type D, select the button labeled "1".

- If the display has value 1, <u>also</u> select the button in the 4th position.

- Otherwise, if the display has value 2, <u>also</u> select the button labeled "3".

- Otherwise, if the display has value 3, <u>also</u> select the button labeled "4".

- Otherwise, if the display has value 4, <u>also</u> select the button in the 1st position.

Stage 2:

- If the display is exactly the same as in stage 1, select the buttons on the positions unselected in stage 1.

- Otherwise, if the display has the same <u>type</u> as stage 1, select the buttons with the labels selected in stage 1.

- Otherwise, if the display has the same <u>value</u> as stage 1, select the buttons whose labels are less than or equal to the number of characters on the display in stage 1.

- Otherwise, select the button labeled "4" and the button whose position is the <u>value</u> of the text on the display.

Stage 3:

- If the display is exactly the same as in stage 1 or 2, select the buttons with the labels unselected in stage 2.

- Otherwise, if the display has the same <u>type</u> as stage 2, select the buttons with the labels unselected in stage 1.

- Otherwise, if the display has the same <u>value</u> as stage 1, select the button whose label is the number of characters on the display in stage 2 (if such a button exists) and the button whose label is the <u>value</u> of the display.

- Otherwise, select the buttons with previously unselected labels and the buttons in previously unselected positions.

Stage 4:

- If the previous displays had three different <u>values</u>, select the buttons in the positions equal to those values.

- Otherwise, if there's exactly one unpressed label, select all buttons whose position is <u>not</u> equal to that unpressed label.

- Otherwise, if the display has the same <u>type</u> as any earlier stage, select all buttons whose labels equal the <u>values</u> displayed in those stages.

- Otherwise, if the display has the same <u>value</u> as any earlier stage, select the button whose position is the displayed <u>value</u>.

- Otherwise, select the buttons in all the positions that have been selected less than three times.