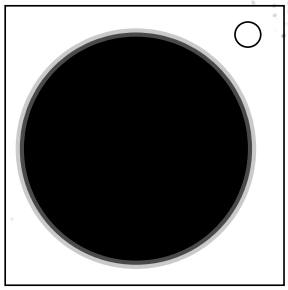
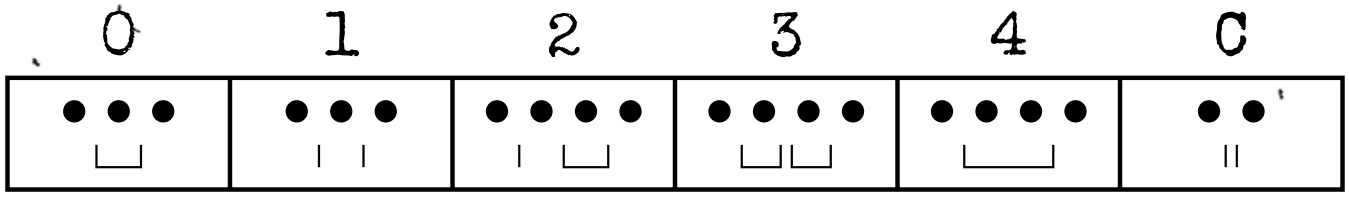
On the Subject of Black Holes



Ground control to Major Tom, do you read?

- To disarm all Black Hole modules on a bomb, obtain a code consisting of digits 0–4. The length of the code is 7 times the total number of Black Hole modules on the same bomb. At any point, you may enter the next digit of the code on any unsolved Black Hole module.
- If you solve a different module on the bomb after entering a digit of the code, the code gets shortened by two digits, except when your digit caused a Black Hole module to become solved. This way the code for a single Black Hole can be reduced from 7 to 3 digits by solving other modules between entering digits. The code for two Black Holes can be shortened from 14 to 6, etc.
- In the 10×10 grid on the next page, your starting location is given by the third and sixth characters of the serial number, which are the x- and y-coordinates, respectively. Columns and rows are counted left-to-right/top-to-bottom from 0.
- To determine your initial direction of movement, start by facing north, then turn 45° clockwise for each port on the bomb.
- Obtain the first digit of the code from that grid location, then move one space in your initial direction, then rotate your direction 45° clockwise.
- The next digit is the sum, modulo 5, of two consecutive grid locations in your current direction. Obtain the two numbers, move one space beyond them, then rotate 45° clockwise.
- Proceed likewise for every subsequent digit, adding one more grid location each time. The *n*th digit of the code is the sum (modulo 5) of *n* consecutive grid locations.
- Every time you move beyond the edge of the grid, wrap around to the opposite side.
- The following page explains the gesture for entering each digit.
- The “C” gesture can be used to determine how many correct digits have already been entered in case you lost track.



- In the above diagrams, a dot represents a tick of the bomb's countdown timer (i.e., a change in the seconds value) going from left to right.
- A vertical line represents a tap on the module. Make sure that you press and release the module between two ticks.
- A bracket indicates holding the module across one or more ticks.

3	4	1	0	2	3	1	2	0	4
1	3	0	2	4	1	2	3	4	0
3	2	4	2	1	3	0	0	1	4
4	0	0	1	3	4	2	2	1	3
1	2	1	3	0	0	4	3	4	2
4	0	2	3	4	1	3	0	2	1
2	1	3	1	3	0	4	4	0	2
2	4	4	0	0	2	1	1	3	3
0	1	3	4	2	2	0	4	3	1
0	3	2	4	1	4	3	1	2	0