Defuse the Bomb

A CSC 102 Project

Team: Dilan, Oliver, Edward, and Zach

Bomb Defusal Manual

To start the game:

- Make sure all wires are plugged in
- Drag the window to fullscreen
- Make sure all toggles are turned off
- Make sure the timer starts at 5 minutes

Defuse the Bomb A CSC 102 Project

The Game

This game is based on the TV show “Family Guy”. Stewie Griffin, evil mastermind and youngest son of Lois and Peter, has built a bomb to destroy their hometown of Quahog. Who else but Peter is tasked to defuse it. However, due to Stewie's propensity for verbal communication, Peter turns to his friends and family for potential clues to defuse the situation. Can you help Peter save Quahog?

Defusing bombs

When the game starts, the user has **5 minutes** to figure out 4 different puzzles. The bomb "explodes" if you make 5 mistakes while trying to defuse the bomb or the timer hits 0:00. You must defuse all 4 puzzles correctly to defuse the bomb.

Phases

The bomb has four different phases, which are solved in order by correctly interpreting the hints. Once the bomb is disarmed, it becomes inactive.

Strikes

If the player makes a mistake while trying to defuse the bomb, you lose a strike and have to reattempt the phase. If the player uses all 5 strikes, the bomb will "explode."

Information

Each time the bomb is "booted," it will load one of 256 unique randomized bomb configurations. These include variations in keypad codes, wire arrangements, and switch patterns.

Disarming the bomb will require interpreting specific clues and identifying the correct solution path — which changes each

time. There are 256 total combinations. You can replay the game multiple times.

Regarding the Toggles

Your task is to determine how many members make up the Griffin family. Once you've figured that out, convert the number into a 4-digit binary code.

Use the toggle switches to match this binary value — with each switch representing a binary digit (1 = ON, 0 = OFF). There are 16 different possible toggle combinations.

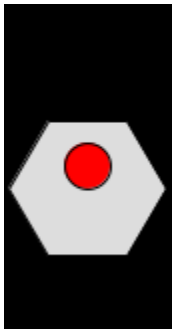
Note: **Pay attention to the clues**

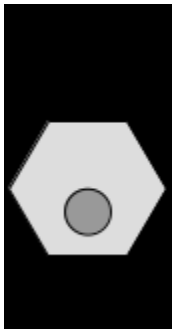
How to convert a value to binary

To convert a decimal (base-10) number to binary (base-2), you repeatedly divide the number by 2 and keep track of the remainders. Start by dividing the number by 2 and writing down the remainder (either 0 or 1). Then, take the quotient and divide it again by 2, recording the next remainder. You continue this process until the quotient becomes 0. Finally, you take all the remainders you've recorded and read them **from bottom to top** (in reverse order) — that sequence of 1s and 0s is your binary number.

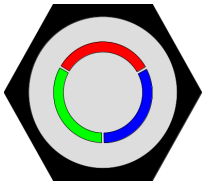
2^3	2^2	2^1	2^0
8	4	2	1

Each switch represents a value in Binary, up = 1 and down=0 the user must figure out the binary order and act accordingly.



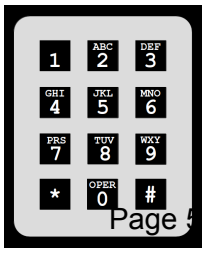


Regarding The Button



The bomb's timer is set to **a randomized countdown of 7, 8, 9, or 10 seconds.** As soon as the phase begins, the clock starts ticking — and the pressure is on.

The player is immediately presented with a **text prompt or visual clue,** tailored to the specific version of the bomb. This clue is crucial — it contains the **hint needed to complete a specific task** before the countdown hits zero. These tasks vary in complexity and style, requiring fast thinking, pattern recognition, or quick decision-making.



Keypad

You must correctly enter a **randomized code that may be 3, 4, or 5 digits long** to disarm the bomb.

Each time the bomb is booted, the game **randomly selects the code length** and generates a corresponding number. This adds variety and unpredictability, requiring players to closely interpret **embedded clues** to determine the correct code.

Notes:

(Hashtag) to **submit** the current input
(Star) to **clear all** entered digits

FOLLOW THE CLUE!!!

Regarding the wires

The wires must be "cut" based on the correct interpretation of the given hint. Each **wire-cutting combination is a 5-bit binary code** or a logic riddle. For the binary, 1 means to keep the wire, while 0 means "cut" it.

Slots go **left to right: Slot 1 → Slot 2 → Slot 3 → Slot 4 → Slot 5**

Cut the correct wires **based on the clue** and the randomized version of the bomb. There are **4 different wire-cutting riddles**— one selected randomly each time the game is booted.

Follow the clues and act accordingly… Good luck!

End of game checklist:

- Return toggles to original settings.
- Return all wires to original settings