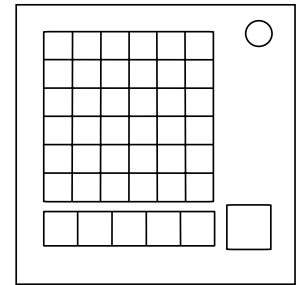# On the Subject of RGB Chess

I don't remember chess having so many sides...

This module contains a 6×6 grid, a panel with chess piece buttons, and a color switcher button. Each cell in the grid will be one of the main RGB colors. (BlacK, Red, Green, Blue, Cyan, Magenta, Yellow or White)

To place down a piece, press one of the piece buttons on the panel, select a color using the color switcher (default is white, the color switcher will switch colors in the order above, looping around to black when reaching white), and press one of the cells on the grid, which will place down the currently selected piece on that cell. To remove an already placed down piece on the grid, press it.

To solve the module, you must place down 4 chess pieces, so that they generate the same grid colors, as the initial grid state.
NOTE: The amount of pieces that will be generated can be changed in Mod Settings.

A colored piece will add its color to any of the cells it can move to, and the cell it is currently located on.
NOTE: Pieces do not block other pieces' moves.

If multiple colors are added to a cell, they mix:

- Decompose each color that was added to that cell into their RGB components using the diagram on the next page, where each component is either present or absent.
- Then, for each RGB component:
    - If it appears an odd number of times on a cell, that cell's color has that component present.
    - Otherwise, that component is absent.
- Combine the components back into a color using the diagram on the next page, this will be the color of the cell after mixing.

When the module strikes on an incorrectly submitted solution, the pieces will flash different colors, which will hint at the **generated solution** for the puzzle: (Note that there can be multiple solutions, this only hints at the generated one!)

- If a piece flashed Green – it is in the correct position, and has the correct color and type.
- If a piece flashed Yellow – it is in the correct position, but has the incorrect color or/and type.
- If a piece flashed Black – the position of that piece is empty in the solution.