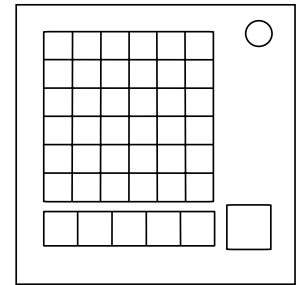


## On the Subject of RGB Chess

*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 last page of this manual, 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 an incorrect solution is submitted to the module for the first time, the module will issue a soft-strike. Any other time an incorrect solution is submitted, the module will strike normally.

When the module strikes or soft-strikes, 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.

There will also be a display to the right of the module displaying certain hints for the **generated solution**:

- The top-left corner will display the most occurring\* piece in the solution.
- The top-right corner will display the number of pieces in the solution and the number of pieces left to place on the module.
- The bottom-left corner will display the two most occurring piece colors in the solution using a 3×3 grid. Two pieces of the same type will be placed in the A1 and A3 cells of the small grid. The A1 piece will have the most occurring\* piece color, and the A3 piece will have the second-most occurring\* piece color. The grid colors are then generated using the same algorithm as the module's grid.
- The bottom-right corner will display the number of intersections in the solution (an intersection happens when a piece adds its color to a cell that already had a color added to it).

\* In case of a tie, *some* color/piece from that tie will be displayed.

NOTE: If you wish to, you may enable a "No hints" mode in Mod Settings, which will disable all of the display's information (except for the number of pieces), make the module not show hints when submitting incorrect solutions, and disable the module's soft-strike system.

