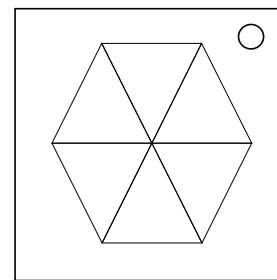


## On the Subject of Triamonds

*Counting to three! How hard can it be?*

This module will display six triangles in the shape of a hexagon. The triangles will not flash, but they will move out from the center and return when the sequence finishes. This will be referred to as a pulse. Triangles will also either face up or down, which will be referred to as orientation. In order to determine what triangles to press, follow the following rules.

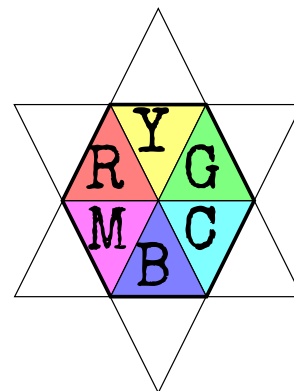


### Determining colour and orientation

1. First, obtain the colours and orientations in the order they pulsed.
2. If the triangle that pulsed second, has the same orientation as the first, flip the orientation and the colour of the second triangle. However, if this colour already appeared in the sequence, invert that colour as well.

### Forming the triamond

If at any point during the rules all three triangles are already placed on the board and they are all adjacent you have obtained your triamond. Whenever this happens, continue to the submit part. The pieces must always be placed in their orientation. The board refers to the image next to this text. Refer to the pseudo-appendix *Terminology* for all terminologies used.



1. Try to place your non-black/white triangles on the board in their given orientation. If any triangle has an incorrect orientation, place it at the position of the inverted colour.
2. However, if the previous rule caused overlapping triangles do not apply this rule on the triangle with the incorrect colour and follow the subrules. The colour not responsible for this conflict will be referred to as the remaining colour.
  1. If the remaining colour is black, place it adjacent to the placed piece and outside the hexagon, and place the unplaced triangle counterclockwise.
  2. If the remaining colour is white, place it adjacent and inside the hexagon, so that the other unplaced colour can be placed clockwise, while still fitting within the hexagon.
  3. If the remaining colour is neither black or white. Place the unplaced colour so it fits within the hexagon.

3. If two triangles are opposite, assume the hexagon wraps around and attach them. If this does not result in a triamond, follow the subrules. The unplaced colour will be referred to as the remaining colour.
  1. If the remaining colour is black, place it counterclockwise.
  2. If the remaining colour is white, place it clockwise.
4. If white doesn't appear in your sequence, but black does, follow the subrules.
  1. If black should not be in the center, place it adjacent to any other triangle, but outside of the hexagon.
  2. If black should be in the center, swap the coloured pieces and place the black piece inbetween.
5. If black doesn't appear in your sequence, but white does, place it within the hexagon so it forms a triamond.
6. If both black and white appear in your sequence, follow the subrules.
  1. If black should not be in the center, place the pieces so that the black piece is counterclockwise and outside of the hexagon, while white is still inside the hexagon.
  2. If black should be in the center, place the black piece outside of the hexagon, adjacent to the coloured piece, and place the white piece clockwise.

Shift your triamond until it fits inside the hexagon and press the triangles in the order you obtained them from the module.

## **Terminology**

- **Inverted colour:** the colour exactly opposite of a colour. Opposites are: black-white; red-cyan; green-magenta; blue-yellow.
- **Wraparound:** the edges connect to the opposite edges to form a seemingly infinite grid.
- **Center:** the piece with a unique orientation and thus will always be in the middle.
- **(Counter)clockwise:** the non-center piece relatively (counter)clockwise from the other non-center piece using the center of the center piece as point of rotation.
- **Shift:** move without rotating.