cedargrove_widgets.magic_eye

A CircuitPython DisplayIO class for the 6E5 Magic Eye display widget.

The Cedar Grove …

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Implementation Notes

Hardware:

Software and Dependencies:

- Adafruit CircuitPython firmware for the supported boards: https://github.com/adafruit/circuitpython/releases

class cedargrove_widgets.magic_eye.MagicEye(*, center=(board.DISPLAY.width, board.DISPLAY.height), …)

Class representing the Magic Eye display widget. The class creates a hierarchical DisplayIO group consisting of sub-groups for the target anode, eye, and bezel/cathode.

Parameters:

- **center** – The floating point width and height tuple value representing the center of the target anode in relative display units. Defaults to (0.5, 0.5).
- **radius** – The floating point radius value of the target anode in relative display units. Defaults to 0.25.
- **display_size** — The host display's integer width and height tuple expressed in pixels. If the host includes an integral display, the default value is (board.DISPLAY.width, board.DISPLAY.height), otherwise the default size value is (320, 240).
- **bezel_color** — The integer RGB color value for the bezel and cathode light shield. Defaults to 0x000000 (black).

display_group

A class property that returns the MagicEye class DisplayIO group.

plot_eye(*, signal=0)

Plot the Magic Eye shadow wedge. Input is a positive floating point value normalized for 0.0 to 1.0 (no signal to full signal) for the 100-degree shadow wedge, but accepts a signal value up to and including 2.0 (signal overlap).

Parameter:

- **signal** – The normalized floating point signal value for the shadow wedge. Defaults to 0 (no signal).