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| --- | --- | --- |
| DOT STAR terms | LEDMatrix terms | Description |
| Enter your value in the Adafruit\_DotStarMatrix() constructor | MATRIX\_WIDTH  MATRIX\_HEIGHT | Number of LEDs in the overall display. DOTSTAR does not have required define for the overall display size. |
| DS\_MATRIX\_TOP  DS\_MATRIX\_BOTTOM | TOP\_DOWN  BOTTOM\_UP | Position of the FIRST LED in the FIRST MATRIX; pick two, e.g. |
| DS\_MATRIX\_LEFT  DS\_MATRIX\_RIGHT | LEFT\_2\_RIGHT  RIGHT\_2\_LEFT | Note: LEDMatrix libraries use negative values in the MATRIX\_WIDTH and MATRIX\_HEIGHT above. My generator splits these out here. |
| DS\_MATRIX\_ROWS  DS\_MATRIX\_COLUMNS | HORIZONTAL\_MATRIX  VERTICAL\_MATRIX | LEDs WITHIN EACH MATRIX are arranged in horizontal rows or in vertical columns, respectively; pick one or the other. |
| DS\_MATRIX\_PROGRESSIVE | HORIZONTAL\_MATRIX  VERTICAL\_MATRIX |  |
| DS\_MATRIX\_ZIGZAG | HORIZONTAL\_ZIGZAG\_MATRIX  VERTICAL\_ZIGZAG\_MATRIX | All rows/columns WITHIN EACH MATRIX proceed in the same order, or alternate lines reverse direction; pick one |
| Name: matrix, TILE | Name: BLOCK or CELL |  |
| none | MATRIX\_TILE\_WIDTH  MATRIX\_TILE\_HEIGHT | Number of LEDs in each matrix/tile/BLOCK/CELL (not the total display). DOTSTAR does not have required define for the matrix/tile size. |
| none | MATRIX\_TILE\_H  MATRIX\_TILE\_V | Number of tiles arranged horizontally and vertically in the overall display. DOTSTAR does not have required define |
| DS\_TILE\_LEFT  DS\_TILE\_RIGHT | LEFT\_2\_RIGHT  RIGHT\_2\_LEFT | Position of the FIRST MATRIX (tile) in the OVERALL DISPLAY; pick two |
| DS\_TILE\_TOP  DS\_TILE\_BOTTOM | TOP\_DOWN  BOTTOM\_UP |  |
| DS\_TILE\_ROWS  DS\_TILE\_COLUMNS | HORIZONTAL\_BLOCKS  VERTICAL\_BLOCKS | The matrices in the OVERALL DISPLAY are arranged in horizontal rows or in vertical columns, respectively; pick one or the other. |
| DS\_TILE\_PROGRESSIVE  DS\_TILE\_ZIGZAG | HORIZONTAL\_ZIGZAG\_BLOCKS  VERTICAL\_ZIGZAG\_BLOCKS | The ROWS/COLUMS OF MATRICES (tiles) in the OVERALL DISPLAY proceed in the same order for every line, or alternate lines reverse direction; pick one. When using zig-zag order |

**Definitions naming**

The terms used to create a matrix can be confusing.

To generate a matrix map for your coding project, you will need to use the LEDMatrix library #defines to configure this table generator. (My *LEDMatrix-21* library can use an XYTable[] lookup array to more quickly generate LED output, including irregular or very large arrays).

While neither the Adafruit DotStar library or the older LEDMatrix libraries can use a XYTable[] for LED position lookup, here is a table relating the names between the DotStar and the LEDMatrix libraries.