UTFT_Geometry

Add-on Library for UTFT: Geometric functions

Manual

Introduction:

This library is an add-on to UTFT and will not work on its own.

This library adds some geometric functions to UTFT which are not included in the main library.

You can always find the latest version of the library at **http://www.RinkyDinkElectronics.com/**

For version information, please refer to **version.txt**.

FUNCTIONS:

UTFT_Geometry(UTFT);

The main class constructor.

Parameters: `UTFT: A reference to an already created UTFT object` *(remember the '&' in front of the object name)*

Usage: `UTFT_Geometry geo(&myGLCD); // Start an instance of UTFT_Geometry pointing to the UTFT object myGLCD`

Notes: Remember that all functions in UTFT_Geometry must be called through the UTFT_Geometry object (geo in this example), while all UTFT functions still must be called through the UTFT object (myGLCD in this example)

drawTriangle(x1, y1, x2, y2, x3, y3);

Draw a triangle with the specified corners.

Parameters:
```
x1: x-coordinate of the first corner
y1: y-coordinate of the first corner
x2: x-coordinate of the second corner
y2: y-coordinate of the second corner
x3: x-coordinate of the third corner
y3: y-coordinate of the third corner
```

Usage: `geo. drawTriangle(159,119,319,119,319,239); // Draw a triangle`

fillTriangle(x1, y1, x2, y2, x3, y3);

Draw a filled triangle with the specified corners.

Parameters:
```
x1: x-coordinate of the first corner
y1: y-coordinate of the first corner
x2: x-coordinate of the second corner
y2: y-coordinate of the second corner
x3: x-coordinate of the third corner
y3: y-coordinate of the third corner
```

Usage: `geo. fillTriangle(159,119,319,119,319,239); // Draw a filled triangle`

drawArc(x, y, r, startAngle, endAngle[, thickness]);

Draw an arc.

Parameters:
```
x         : x-coordinate for the center of the imaginary circle
y         : y-coordinate for the center of the imaginary circle
r         : Radius of the imaginary circle
startAngle: Angle from the center of the imaginary circle to start drawing the arc
endAngle  : Angle from the center of the imaginary circle to stop drawing the arc
thickness : <optional>
            Thickness of the arc in pixels. Default is 1 pixel.
```

Usage: `geo. drawArc(159,239,100,-75,75); // Draw an arc`

Notes: 0° is at the top of the imaginary circle

drawPie(x, y, r, startAngle, endAngle);

Draw an arc with lines to the center of the imaginary circle.

Parameters:
```
x         : x-coordinate for the center of the imaginary circle
y         : y-coordinate for the center of the imaginary circle
r         : Radius of the imaginary circle
startAngle: Angle from the center of the imaginary circle to start drawing the arc
endAngle  : Angle from the center of the imaginary circle to stop drawing the arc
```

Usage: `geo. drawPie(159,50,100,135,225); // Draw a pie shape`

Notes: 0° is at the top of the imaginary circle