

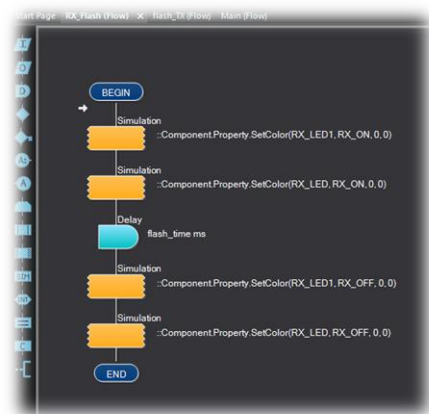
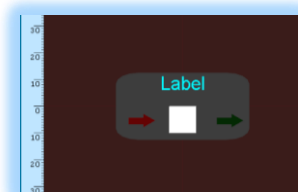
FLOWCODE 8

Component Creation Part 2

The 2D Dashboard Panel



Build & Design your own Components



You will be using the **Dashboard Panel** in a way that you may not have fully explored before. It has features to control how components are placed; displayed and simulated. Therefore, it is very important you can navigate and use its features correctly. The Dashboard panel is linked directly to the **Properties** Panel opposite via FC8's API.

When a component is placed onto the dashboard panel, all the components functionality, that is stored in the components library, is carried – **via** the Dashboard Panel into Flowcode 8's system API. Therefore, when you click anywhere onto an empty space on the Dashboard panel, the properties panel will also be empty. When you click onto a component placed onto the Dashboard panel, FC8 will display some of the contents of the component library. You get to control this by its design.

The size; location; level of detail and orientation of any shape or component that is placed onto the Dashboard Panel, can be manipulated **via** the properties panel.

Let's begin by looking at how size and location are controlled by the Dashboard Panel. There are two faint redlines.

One running vertically and one horizontally.

These are the axis:

X = the horizontal axis

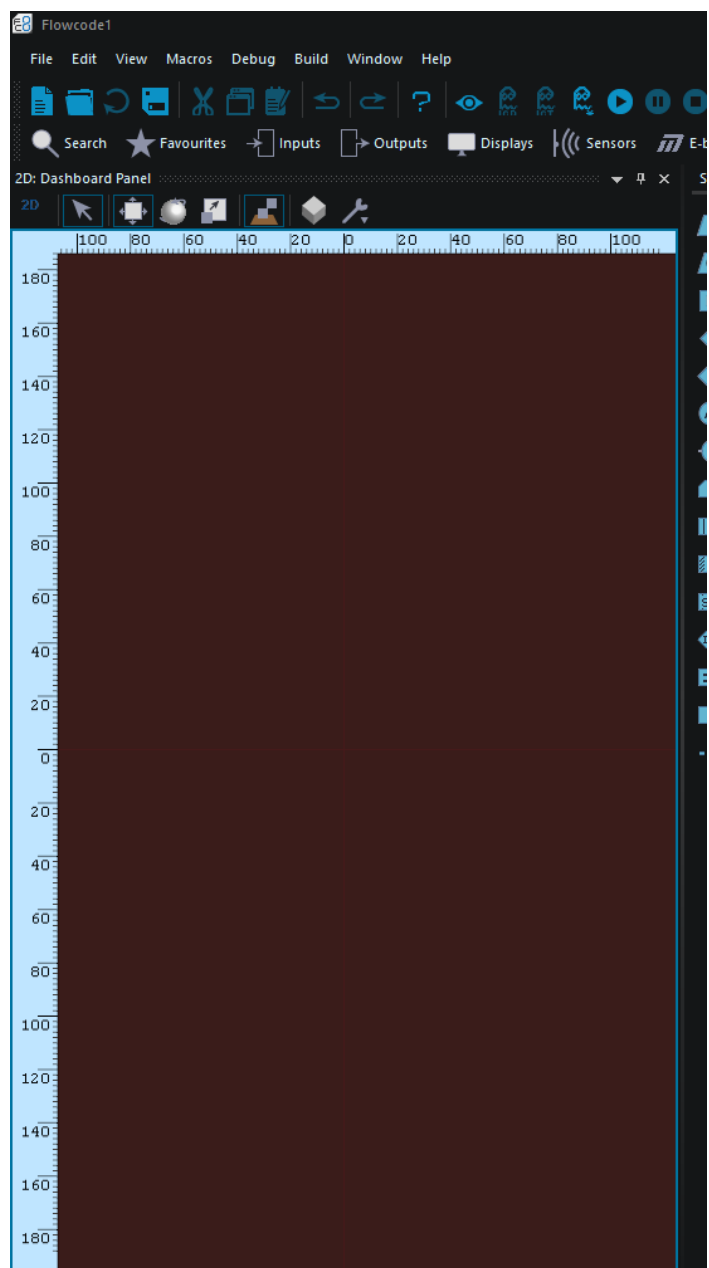
Y = the vertical axis

One axis you can not see, is the one coming out of the screen towards you.

Yes, it's this, the:

Z axis

On each axis, a shape or component can be rotated around its axis.



Look at this device. It shows each axis and the direction of rotation about each axis.

Let's define them as follows:

The YELLOW line is the **X = axis**

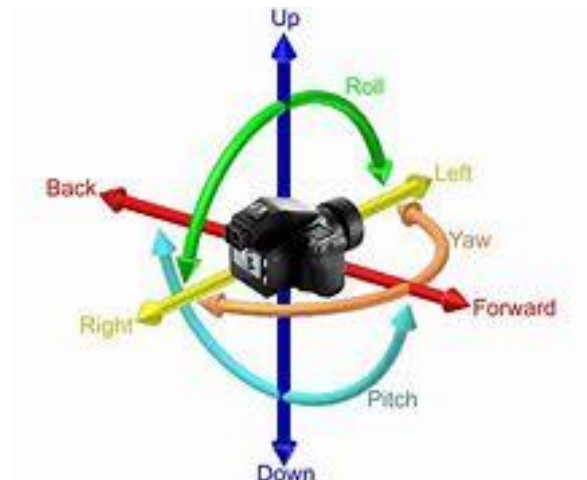
Light blue line its rotation

The BLUE line is the **Y = axis**

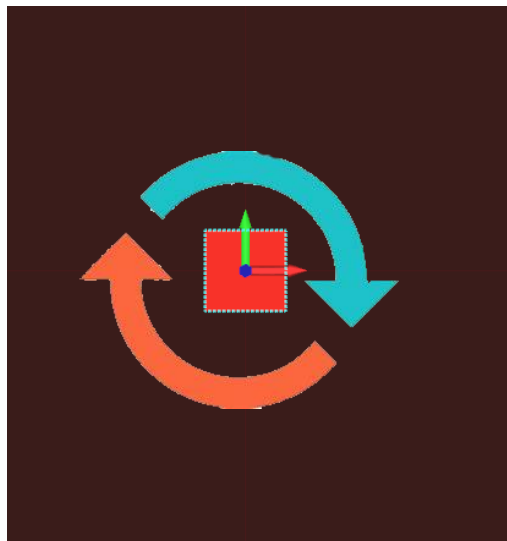
Orange line its rotation

The RED line is the **Z = axis**

Green line its rotation



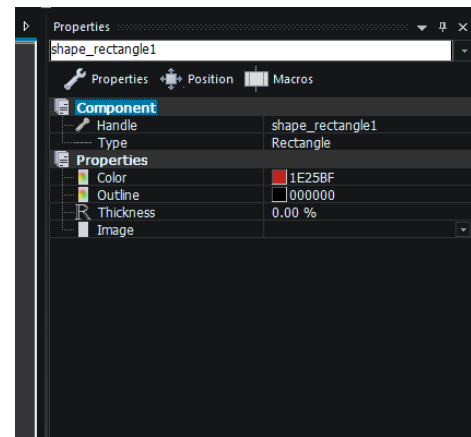
So, if you wanted to rotate a component on the screen (the Dashboard Panel) either clockwise or counter-clockwise, which axis would you select from those show?



Yes, the **Z** axis. Let's see that in action. Place a square from the 2D shapes available onto the 2D dashboard panel. Click onto the square to bring up its properties in the Properties panel.

When the shape is highlighted, you will see the properties Panel has three menus:

- **Properties**
- **Position**
- **Macros**



The skills we need to master are: - Size; position; coordinates; colour; rotation; handle & Type parameters and macros.

Click on the square shape you have placed on the 2D dashboard panel.

Change the **Properties** panel:

Rotation

Z = 45.000

Then

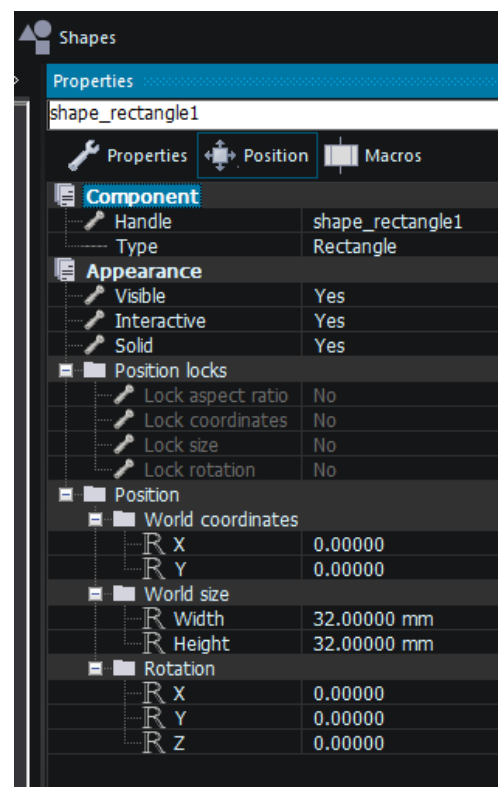
Z = -45.000

Hopefully you will see the square rotate first counter clockwise then clockwise.

No, watch the green arrow, its very helpful in keeping you right!

Not what you expected! The world axis is divided up into 360 degrees going counter clockwise. Thankfully, it is the only axis we need to manipulate when doing rotation movements on the 2D dashboard panel.

Hopefully, you will now begin to understand why we need to master the 2D dashboard panel. The main skill is – size and position.



Those two faint **RED** lines.

Where they cross is **0,0**

Or

X = 0

Y = 0

When you first place any shape onto the 2D Dashboard panel, it will be placed direct over the centre of these two lines. Why?

Each shape is measured from its centre. Therefore, the square you placed onto the 2D Dashboard panel is measured as follows;

Properties Panel

World size

- **Width = 32.00mm**

Left & right

- **Height = 32.00mm**

Up & Down

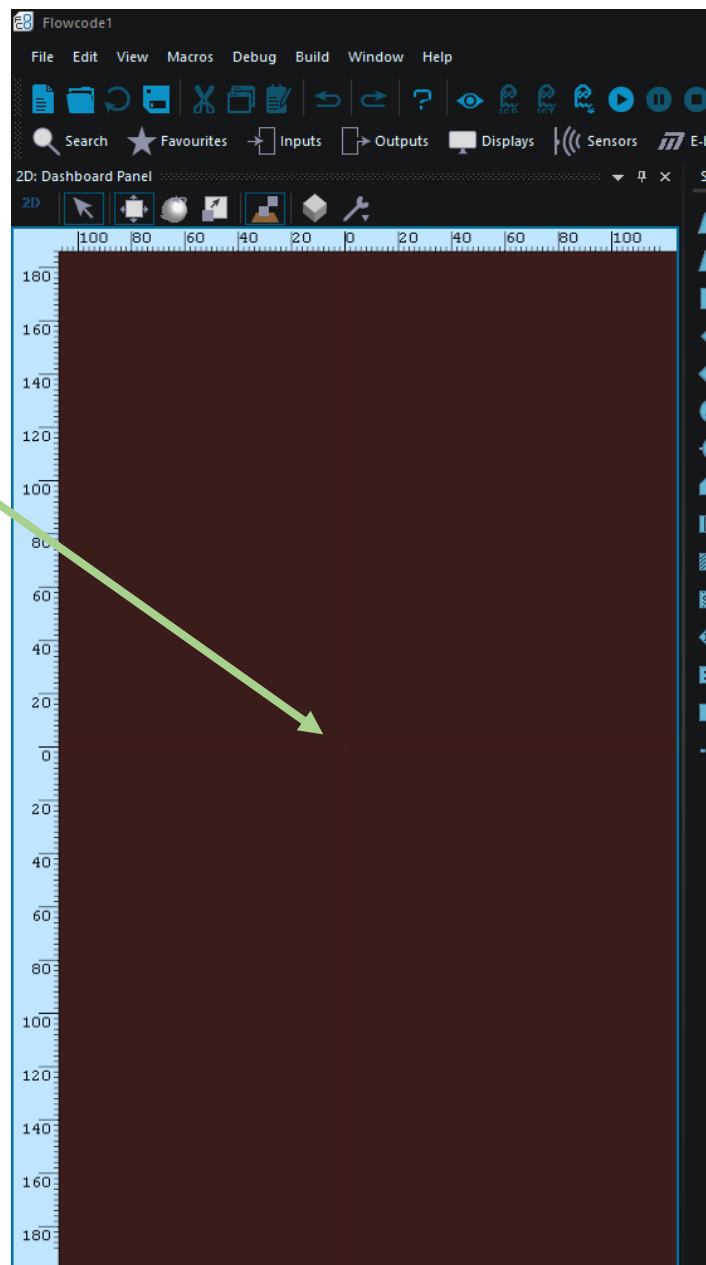
Therefore, the square has 16.00mm above and below the **X** axis and 16.00mm on each side of the **Y** axis.

You may be tempted to just drag the shapes around. This is not going to be an effective method when building FC8 components. Using the coordinate system is an essential task to be performed correctly for professional results.

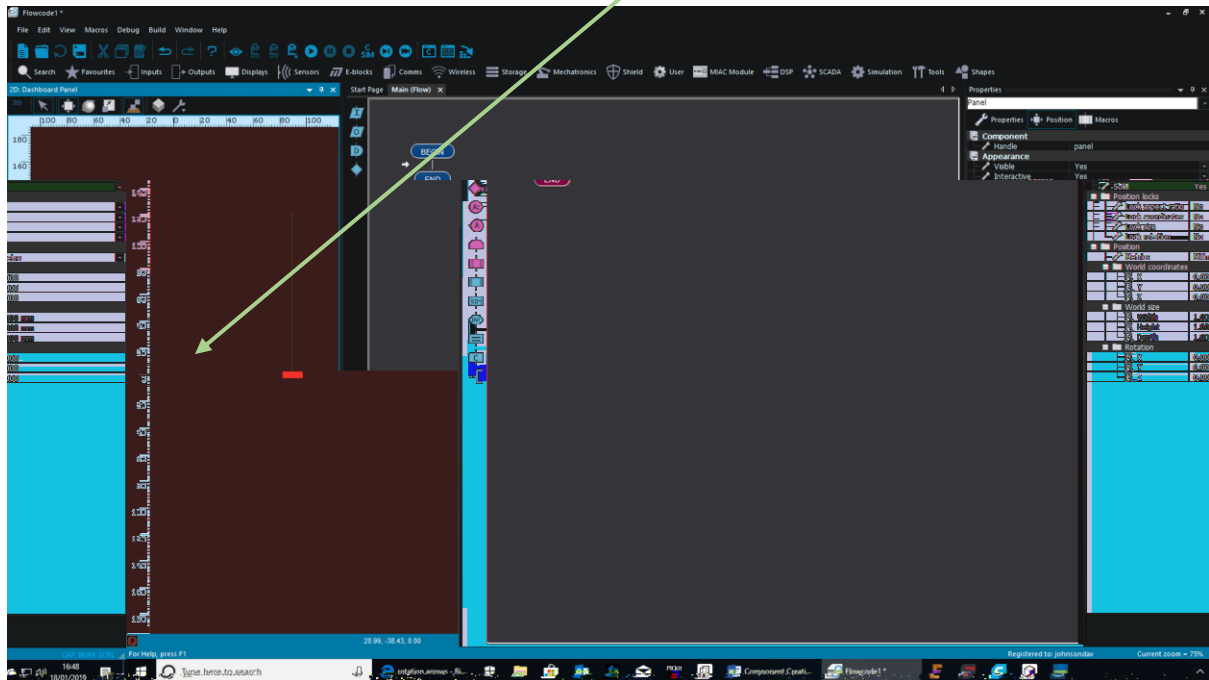
Now, change the **World size** of the square as follows:

Width = 15.00mm

Height = 5.00mm



You should have a small red square that looks like this:



That's the basic movements you will be using for now. Just remember:

- Shapes are measured from their centres
- The Z axis is towards you
- Where the red lines cross is X 0, Y 0 in millimetres.