National Centre for Computing Education

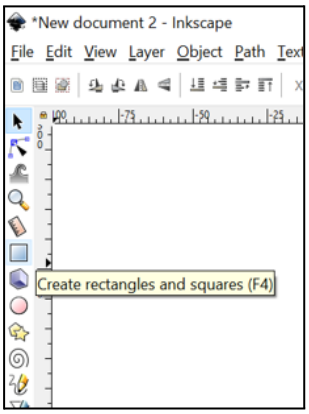
Raspberry Pi

Create and manipulate rectangles and squares

These instructions will guide you through creating and manipulating shapes in Inkscape, including altering the fill, stroke, and any shape-specific attributes.

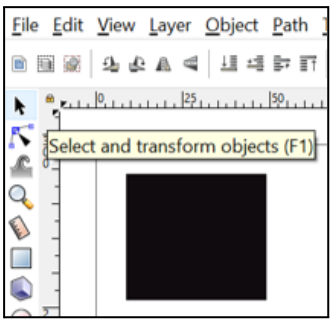
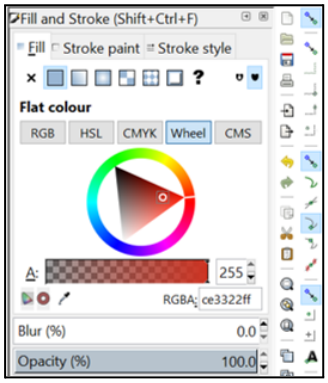
The latest version of Inkscape was used at the time of creating this resource (Inkscape 0.92). Note that there may be differences between versions.

Task Create a rectangle/square

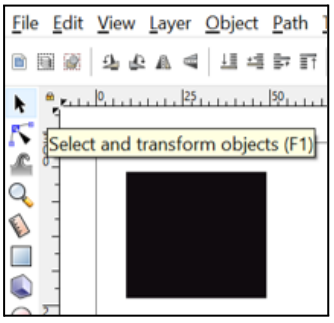
Steps	Instructions
1. **Drag** a rectangle/square shape onto the canvas. 	Select the rectangle/square tool from the tool bar on the left side of the screen (the square icon). Click and hold the left mouse button on the canvas. Drag the mouse to draw a rectangle/square to the required size. Release the left mouse button to finish drawing your rectangle/square.

Task Alter the fill of a rectangle/square

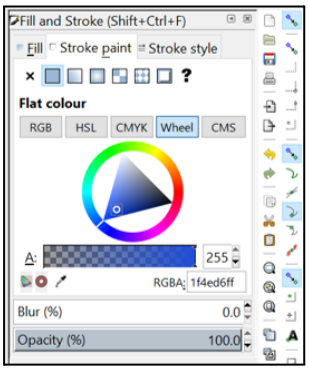
Steps	Instructions
1. **Select** the rectangle/square you wish to alter.	Select the selection tool from the tool bar on the left side of the screen (the black arrow icon). Click on the required rectangle/square to select it. Black double-ended arrows will appear around

	the selected rectangle/square.
2. **Select** the required fill colour.  	Click on the fill tab from the fill and stroke window on the right side of the screen. Choose a paint type by clicking on one of the options shown as squares. Options include: No paint, Flat color, Linear gradient, Radial gradient, Pattern, Unset paint. Use flat colour for now. Below the text that reads ‘flat colour’, select the wheel option. Select a colour from the outer wheel. Select the required tone from the centre triangle. **Tip:** You can also choose a fill colour for a selected shape using the bar at the bottom of the page.

Task Alter the stroke of a rectangle/square

Steps	Instructions
1. **Select** the rectangle/square you wish to alter. 	Select the selection tool from the tool bar on the left side of the screen (the black arrow icon). Click on the required rectangle/square to select it. Black double-ended arrows will appear around the selected rectangle/square.

2. **Select** the required stroke colour.





Click on the stroke paint tab from the fill and stroke window on the right side of the screen.

Choose a paint type by clicking on one of the options shown as squares. Options include: No paint, Flat color, Linear gradient, Radial gradient, Pattern, Unset paint. Use flat colour for now.

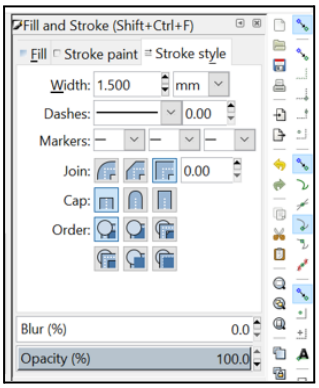
Below the text that reads ‘flat colour’, select the wheel option.

Select a colour from the outer wheel.

Select the required tone from the centre triangle.

Tip:
You can also choose a stroke colour for a selected shape using the bar at the bottom of the page, once a paint type has been selected.

3. **Select** the required stroke style.

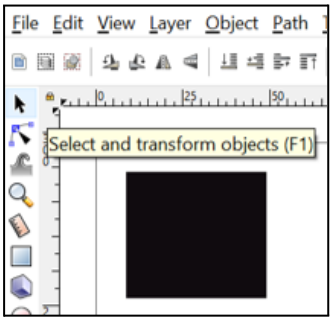
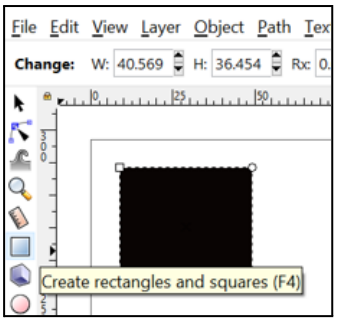
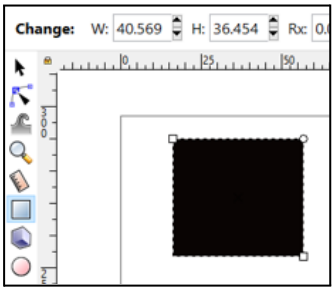


Click on the stroke style tab from the fill and stroke window on the right side of the screen.

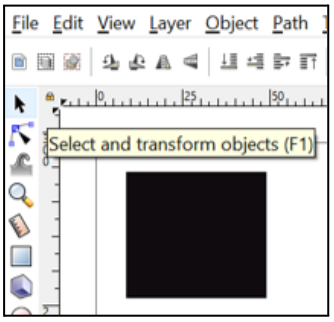
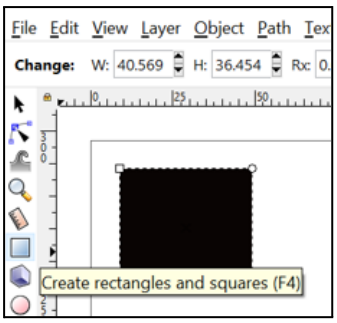
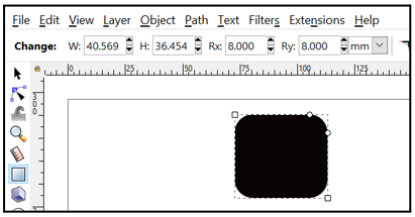
Change the width to the required size.

Select a suitable dash pattern.

Task Alter the height and width of a rectangle/square

Steps	Instructions
1. **Select** the rectangle/square you wish to alter. 	Select the selection tool from the tool bar on the left side of the screen (the black arrow icon). Click on the required rectangle/square to select it. Black double-ended arrows will appear around the selected rectangle/square.
2. **Select** the rectangle/square tool. 	Select the rectangle/square tool from the tool bar on the left side of the screen (the square icon). White nodes will appear on the top left, top right, and bottom right corners of the selected rectangle/square.
3. **Alter** the height and width of a rectangle/square. 	There are two ways to alter the height and width of a rectangle/square. **Method 1:** Click and drag the nodes in the top left or bottom right corner of the selected rectangle/square. **Method 2:** To alter the height and width more accurately, change the **W:** (width) dimension and the **H:** (height) dimension at the top of the screen by using the up and down arrows or entering the required height and width.

Task Add rounded corners to rectangle/square

Steps	Instructions
1. **Select** the rectangle/square you wish to alter. 	Select the selection tool from the tool bar on the left side of the screen (the black arrow icon). Click on the required rectangle/square to select it. Black double-ended arrows will appear around the selected rectangle/square.
2. **Select** the rectangle/square tool. 	Select the rectangle/square tool from the tool bar on the left side of the screen (the square icon). White nodes will appear on the top left, top right, and bottom right corners of the selected rectangle/square.
3. **Add** rounded corners to your rectangle/square. 	There are two ways to add rounded corners to a rectangle/square. **Method 1:** Click and drag the vertical and horizontal radius nodes in the top right corner of the selected rectangle/square. These nodes alter the **Rx:** (horizontal radius) and **Ry:** (vertical radius) of the ellipse. **Method 2:** To alter the vertical and horizontal radius nodes more accurately, change the **Rx:** (horizontal radius) and **Ry:** (vertical radius) dimensions at the

	top of the screen by using the up and down arrows or entering the required height and width.

Task Create a green rectangle

Paste your work here:

Explorer task Create a blue rounded edge rectangle with 2.5mm dotted green stroke

Paste your work here:

This resource is available online at ncce.io/med2-1-a3-w. Resources are updated regularly — please check that you are using the latest version.

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