



INKSCAPE 0.92

Tutorial 6

Animation

Buoy Bobbing

A: Document Setup Click the File Menu then the Document Properties... Command.

In Page tab and General panel, change the Display Units: to show px.

Note px means pixels.

In Page Size and Custom Size, type a Width: of 800 px and Height: of 1000 px.

In Grids tab and Creation panel, click New to define a new Rectangular Grid.

Type to make the grid have a Spacing X: of 50 px and Spacing Y: of 50 px.

Type to make the Major Grid Line Every: 4 lines and tick the box to be Visible.

Click the X to close the Document Properties Window.

Zoom in to almost fill the screen with the document page.

B:- Draw 1st Buoy & Wave Click the Layer Menu then the Layers... Command to open the Layers Dialog.

Click Layer1 then Right-Click and choose the Rename Layer... Command.

Replace the text Layer1 with LayerA then click Rename.

Draw the buoy base as an Ellipse Segment with Start and End angles 0 and 180 respectively.

Draw the buoy body (triangle) as a Polygon with 3 Corners.

Draw the buoy light as an Ellipse.

Use shape Handles to scale and locate shapes on the page.

Note: Press Shift Key to override snapping to grids, objects etc.

Draw the buoy stripes with the Pen (Bezier) Tool, each as a closed path with 4 Nodes.

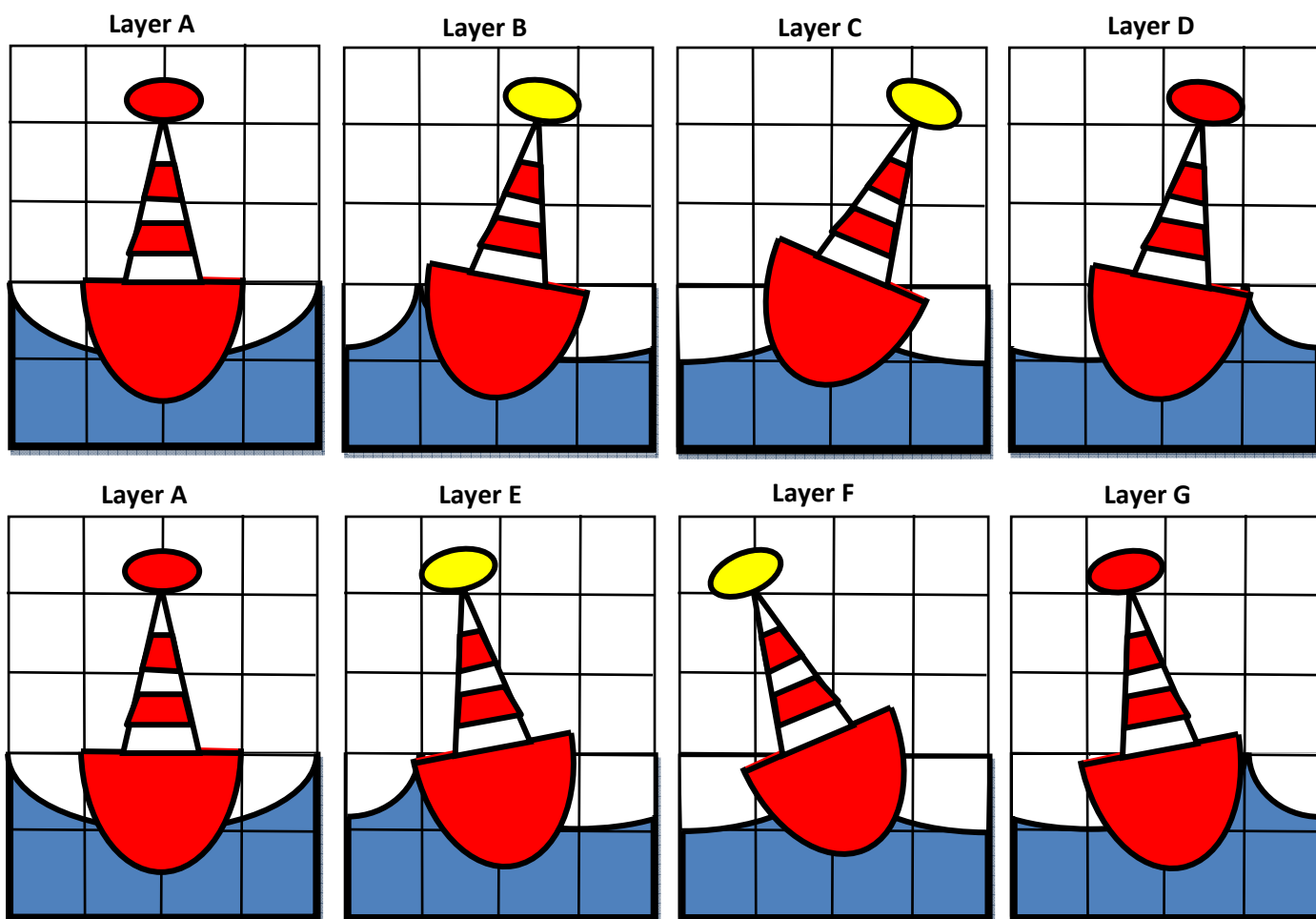
Draw the water wave with the Pen Tool as a closed path of 4 nodes then use the Node Tool to shape the dipping curve by Click-Dragging the upper line segment.

Use Selector Tool and the None Swatch on the palette to give all shapes no Fill, for now.

Note: Not filling shapes allows objects on visible lower layers to be seen through an upper layer.

Use the Fill and Stroke Dialog and Stroke Style tab to give all shapes a stroke of 4 px.

Shift -Click the five buoy parts (not the wave) to select them then use the Object Menu to group them.





C:- Draw 2nd Buoy & Wave In the Layers Dialog, Click the Plus Sign to create a new layer.

Type in the Layer Name: box to name it LayerB, choose its position to be Above Current, then Click Add.
Click to make LayerA active.

Click to select the buoy group then Click the Edit Menu and the Copy Command.

Click to make LayerB active then Click the Edit Menu and the Paste In Place Command.

Click the buoy group on LayerB to reveal its Rotation Handles then Ctrl+Click-Drag a corner handle to rotate it 15 degrees clockwise.

Click-Drag the buoy on LayerB to align its middle with that of the underlying buoy on LayerA.

Draw the water wave with the Pen Tool as a closed path of 5 nodes then use the Node Tool to shape the two dipping curves by Click-Dragging the 2 upper line segments.

D:- Draw 3rd Buoy & Wave In the Layers Dialog, with LayerB active, Click the Plus Sign to create a new layer.

Type in the Layer Name: box to name it LayerC, choose its position to be Above Current, then Click Add.
Click to make LayerA active.

Click to select the buoy group then Click the Edit Menu and the Copy Command.

Click to make LayerC active then Click the Edit Menu and the Paste In Place Command.

Click the buoy group on LayerC to reveal its Rotation Handles then Ctrl+Click-Drag a corner handle to rotate it 30 degrees clockwise.

Click-Drag the buoy on LayerC to align its middle with that of the underlying buoys on LayerA & LayerB.

Draw the water wave with the Pen Tool as a closed path of 5 nodes then use the Node Tool to shape the two dipping curves by Click-Dragging the 2 upper line segments.

E:- Draw 4th Buoy & Wave In the Layers Dialog, with LayerC active, Click the Plus Sign to create a new layer.

Type in the Layer Name: box to name it LayerD, choose its position to be Above Current, then Click Add.
Click to make LayerB active.

Shift+Click to select the buoy group and wave then Click the Edit Menu and the Copy Command.

Click to make LayerD active then Click the Edit Menu and the Paste In Place Command.

Click to select just the wave then Click the Object Menu and the Flip Horizontal Command.

F:- Draw Remaining Buoys & Waves In the Layers Dialog, Click the Plus Sign to create three new layers.

Rename the three as LayerE, LayerF then LayerG. Note that LayerA isn't repeated.

NOTICE: No further drawing is required!

LayerE is identical to LayerB but with the buoy flipped horizontally!

LayerF is identical to LayerC but with the buoy flipped horizontally!

LayerG is identical to LayerD but with the buoy flipped horizontally!

Raise the wave in all layers to the level in front of the buoy.

Ungroup the buoy in all layers and fill the shapes with red, blue and, for some, yellow colour.

In LayerA, create a Cyan-filled rectangle to fill the page, then Lower it to the Back.

Copy the Cyan rectangle and Paste it in place to be in all layers and lowered to the back of each.

G:- Save the Pictures Click the File Menu then the Save As... Command, choose a Folder and type a Filename:

InkDrawTut6BuoyBobbing.svg. Click OK.

In the Layers Dialog, Click eye icons to make LayerA the only layer visible.

Click the File Menu and the Export PNG Image Command to open the Export PNG Image Dialog.

For Export Area choose the Page tab then for Filename Click the Export As... Button.

Choose a Folder and type a Filename: InkBuoyA.png. Click Save. Click Export Button.

Repeat the above 4 lines to create InkBuoyB.png, then InkBuoyC.png etc to InkBuoyG.png.

H:- Convert the Pictures Launch the Paint program **Paint.NET**.

Click the File Menu then the Open... Command then, in Paint.NET's Open Dialog choose your course folder and select the file:InkBuoyA.png. Click Open.

Click the File Menu then the Save As... Command then in Save As Type: choose GIF. Click Save and Click OK.

InkBuoyA. png now is saved also as InkBuoyA.gif. Click the File Menu and the Close Command.

One at a time, convert the other six PNG (vector drawn) files into GIF bitmap files.



I:- Create the Animation Launch the program **Microsoft GIF Animator**.

Click the Open Icon then use the Open Dialog to choose your course folder and select the last of the GIF files: InkBuoyG.gif. Click Open.

Click the Insert Icon (4th from the left) then use the Open Dialog to choose your course folder and select the next last of the GIF files: InkBuoyF.gif. Click Open.

Click the Insert Icon then use the Open Dialog to load GIF file: InkBuoyE.gif. Click Open.

Click the Insert Icon then use the Open Dialog to load GIF file: InkBuoyA.gif. Click Open.

Insert InkBuoyD.gif, InkBuoyC.gif, InkBuoyB.gif and then InkBuoyA.gif for the second time.

(The Up and Down Arrows may be used to alter the order of a selected file in the assembly.)

Click the Animation Tab.

Click to tick the box for Looping, and then tick the box for Repeat Forever.

Click the Images Tab.

Select Frame #1 then type a Duration: of 60 (equal to 60/100 of a second).

Choose as the Undraw Method: Restore Background

Click the Transparent Color: box and Click in the Colour Palette to choose the cyan background colour.

(This will be a guess that will need revision.) Click OK.

Select each frame in turn to give it the same Duration, Undraw Method and Transparency colour.

Click the Preview Icon (2nd from the right) to view the effect of the chosen settings.

Click the X to close the Preview Window.

Select frames in turn to make adjustments to the transparency colour. The cyan must become invisible.

Note that an adjustment to speed up the animation by, say, adjusting duration to 30/100, must be made to each frame.

Click the Save As Icon (5th from the left)) then use the Save As Dialog to choose your course folder and type a Filename: InkDrawTut6BuoyBobbingAnimation.gif. Click Save.

J:- Play the Animation Launch the program **Microsoft Office PowerPoint**.

Choose New Presentation, Blank Presentation, then Click Create.

Click the Insert Menu then the Picture Icon to open the Insert Picture (From a File) Dialog.

Choose your course folder and select the file: InkDrawTut6BuoyBobbingAnimation.gif. Click Insert.

Click-Drag the picture and its scale handles to locate it centrally and at full screen height.

Click the Insert Menu then Click the Shapes Icon and insert a rectangle to cover the full screen.

Click the Format Menu then the Shape Fill Icon then choose a dark blue colour for the background.

In the Format Menu, Click the Send to Back Icon.

Click the Insert Menu then Click the Shapes Icon and insert a rectangle to cover the picture frame.

Click the Format Menu then the Shape Fill icon and choose a stormy grey colour for the sky.

In the Format Menu, Click the down arrow on the Send to Back Icon and choose Send Backward.

Click the Insert Menu then the Shapes Icon to insert a Text Box for a title.

Type a title into the text box: Buoy Bobbing.

Click the Home Menu to edit the text and drag the text box handles to scale and position it.

Click the Slide Show Menu then the From Beginning Icon to start the slide show playing.

(Press the Esc Key to stop the animation and return from slideshow mode to design mode.)

K:- Save the Display In Microsoft Office PowerPoint, Click the Office Button (in the top-left of the window).

Click the Save As Command and Click to choose a PowerPoint Presentation option.

In the Save As Dialog, choose your course folder and type the file: InkDrawTut6BuoyBobbingAnimation.ppt.

Click Save.

L: Save Drawings Save the Drawing as InkDrawTut6BuoyBobbing.svg.

Export the Drawing Frames in Bitmap files as InkBuoyA.png, InkBuoyB.png, etc to InkBuoyG.png.

Convert the Drawing Frames as GIF files as InkBuoyA.gif, InkBuoyB.gif, etc to InkBuoyG.gif.

Save the GIF Animation as InkDrawTut6BuoyBobbingAnimation.gif.