



SketchUp

The iPod Classic

Level of Difficulty



Time

Approximately 20–25 minutes

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By the end of this tutorial you will be able to...

- Draw an iPod using real-life sizes
- Use guidelines (construction lines)
- Add and use other tool sets
- Add 3D letters
- Add your own photographs
- Colour/render your design

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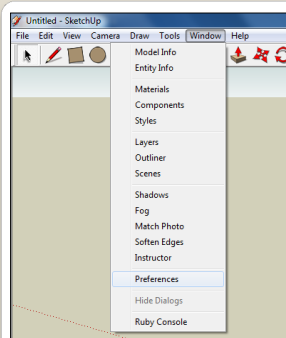
Skills to be used in this project...

Basic Skills	New and Higher Skills
Zoom tool	Tape Measure tool for guidelines
Orbit tool	Arc tool
Pan tool	Move tool
Line tool	Use Views toolbar
Rectangle tool	Import photographs
Circle tool	Paint Bucket tool
Eraser tool	3D Text tool
Push/Pull tool	

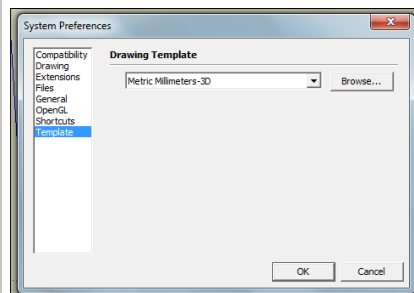
Basic skills are those required to do very basic drawings and are detailed as part of this presentation.

New and higher skills may be new to the novice and are the focus for learning in this presentation.

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1. Once you have opened SketchUp, go to **Window** and select **Preferences**.



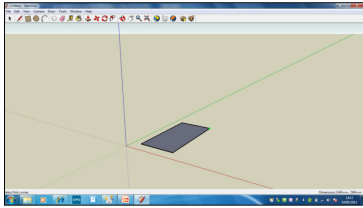
2. Select **Template** and choose **Metric Millimeters-3D**. We are using this template because we are doing a product design. Therefore, on some versions of SketchUp you will need to select **Product Design & Woodwork, Millimetres**.

Note: It is often necessary to start a new file to use the new template. Go to **File** then **New**.

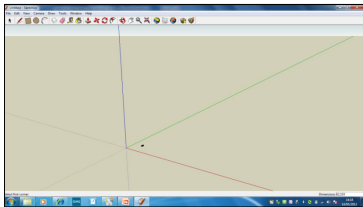
4




3. Now select the **Rectangle** tool and draw a rectangle on the base by clicking and dragging the cursor diagonally.



4. Once you have drawn the rectangle, DO NOT press enter. Firstly, enter '62,103' and then press Enter. *This gives the real-life size dimensions of the iPod.*



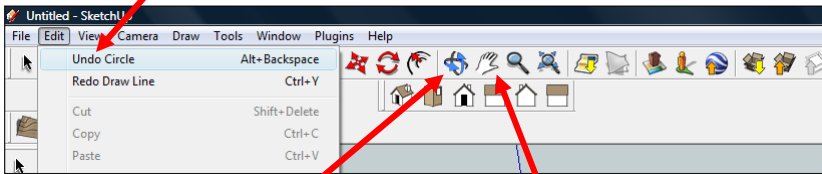
5. Your resized rectangle may look very small. Just place your mouse cursor over it and use the middle wheel to roll and zoom in on it. Alternatively, use the **Zoom** tool on the toolbar.




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Some useful tips...


Note: If you make a mistake at any time during this tutorial you can just go to **Edit** and choose **Undo** from the drop-down menu, or press the **Alt** and **Backspace** keys.



You can use the **Orbit** tool to change the angle that you are viewing your design from. You can do the same by pressing the middle wheel of your mouse.

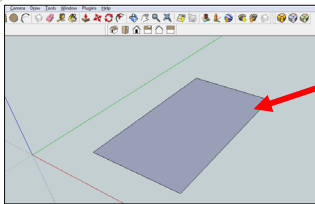


You can also use the **Pan** tool to grab and move your object around the screen. Alternatively, you can pan by pressing the **Shift** key and holding down the mouse's middle wheel.


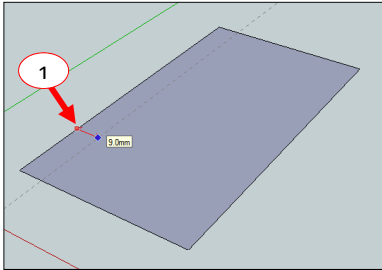


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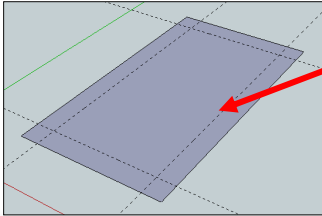
6. Having zoomed in, your view should look more like this one.



7. Select the **Tape Measure** tool from the toolbar. Click on the edge shown as 1 (look for the red dot). Move the cursor in from the edge and a guideline will appear. Type '8' and this will set the guideline 8 mm from the edge.





8. Do this on the other three edges to make a margin all the way around the rectangle.

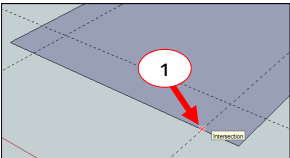


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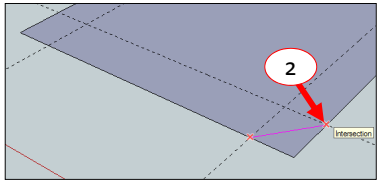
9. Now select the **Arc** tool so that you can round the corners off.



10. Click on the end of a guideline where it meets the edge (1). Look for the red cross and the prompt **Intersection** to appear.

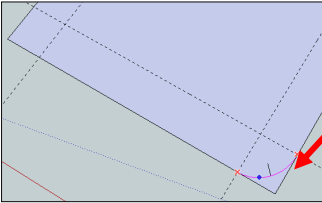


11. Now draw a line diagonally across the corner, to join with the other guideline's end (2). Again, look for the red cross and **Intersection** to appear before clicking on it.

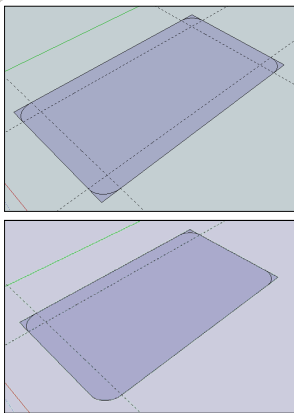


12. Now move the cursor towards the centre of the line you have just drawn and bend it outwards a little. Then type '8' and press Enter to give a radius of 8 mm.

Tip: I find it useful to orbit so that I can see the rectangle directly from above.



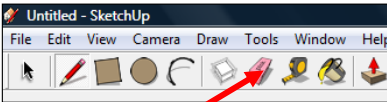
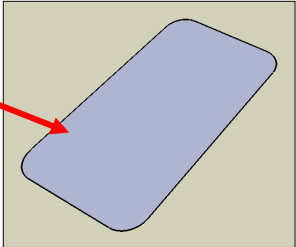
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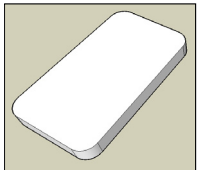
13. Do the same at each corner of the rectangle, to form an arc at each corner.
It helps to orbit and pan the each corner as you do so.

14. Use the **Eraser** tool to remove the unwanted corner lines and guidelines.

15. This will leave you with a shape like this.


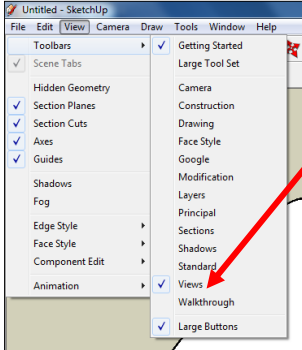

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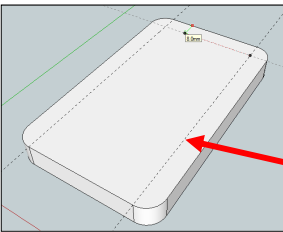
16. Select the **Push/Pull** tool and click on the shape. It should now be highlighted blue.
Pull up the shape to make it 3D, but do not click to stop it yet. Instead, enter '10' and then click and this will make it 10 millimetres thick. The real size!

17. Now you want to be able to view your object straight on. To do this you are going to use the **View** toolbar.
Go to **View**, select **Toolbars** and then click on **Views**; this new set of tools will be next to your toolbar.

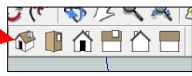
18. Click on this icon and you should see this.


10



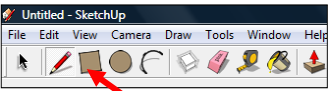
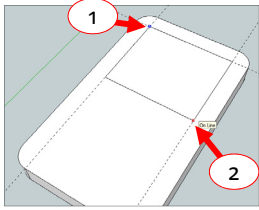
19. Use the new **Views** toolbar to switch back to a perspective view OR just **Orbit** again.



20. Now you are going to create the screen. Use the **Tape Measure** tool to add some guidelines along the top and two sides of the block (as you did before).



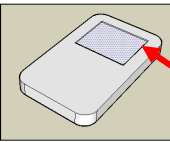


21. Use the **Rectangle** tool to draw a rectangle starting from the corner of the guideline (look for the blue dot and the prompt **Centre**, shown at 1). Click somewhere on the other guideline (2) to form your screen. Use your own judgement to choose the size.

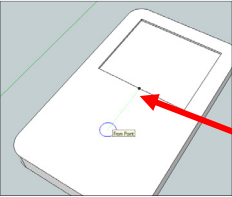



22. Delete the guidelines.

23. Select the **Push/Pull** tool. Push the square down and type '1'. This will recess the screen by 1 millimetre.

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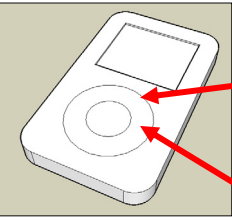



24. Select the **Circle** tool.

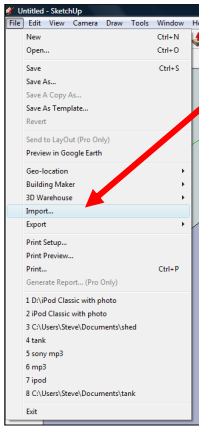
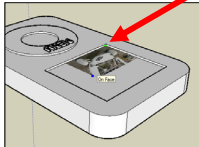
25. To form the click wheel, first find the centre of the bottom edge of the screen by hovering the cursor over it. (look for the blue dot and **Midpoint** prompt). Gently move the mouse away and a green dotted line will appear, showing you that you are still in line with the centre.

26. Use your judgement to place the circle's centre and click. Then drag out to form a circle and enter '20'. This will make the outside of the circle have a 20 millimetres radius.

27. Then, making sure you start from the circle's centre (look for the blue dot and prompt), draw the inner circle. Use the **Push/Pull** tool to pull the ring up by 1 mm.

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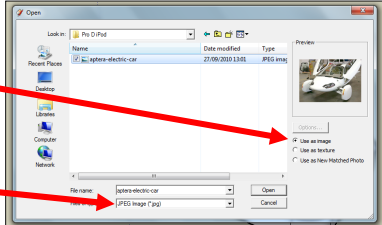

28. Now you are going to put your own picture on the screen. To do this go to **File**, then **Import** and from your own files find a picture that you like.

29. You need to select this button, 'Use as image' and then click **Open**.


The type of image will need to be a JPEG so make sure this is selected in the box.

30. Then you need to rotate (using the mouse's middle wheel) the iPod to get the image to start in this corner. Look for the bright green spot.

31. With the image still selected, use the mouse's middle wheel to rotate so that you can select this opposite corner.

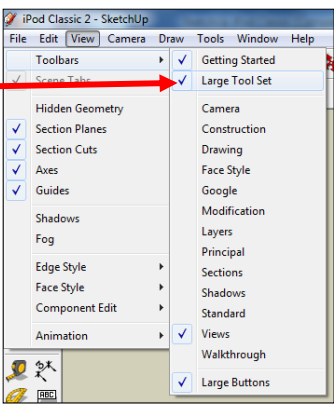



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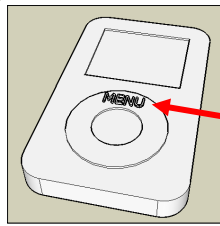


32. Now, again, you are going to add to your toolbars by selecting **View** then **Toolbars**, then **Large Tool Set**. It will give you a toolbar like this one on the left-hand side of your screen.

33. Next you are going to select the text tool. The one that is a capital 'A'.



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34. When the 3D text prompt box comes up, type 'MENU' and enter a value of 3 mm for its height and 1 mm to extrude (this means its thickness).

35. Place the 3D lettering on the click wheel.

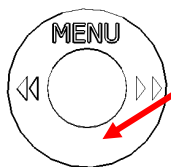


36. If you are not happy with its position, use the **Pick** tool to select it by drawing a box around it. This will highlight it again in blue. Then use the **Move** tool to place it where you want. *You can move lots of things in this way.*

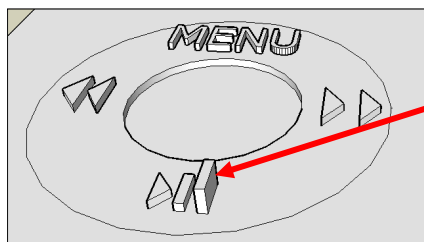
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37. Some of you may be able to create these details for the click wheel by using the **Line** tool carefully.



38. *Don't forget to add a play button here!*



39. Then, use the **Push/Pull** tool to raise the details by 1 millimetre. *I'm halfway through this one!*

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