

Imaginality Create Activity: Become an Astronaut

Aim

Become an astronaut, planting your country's flag on the surface of the moon! You will take a photo of your face, wrap that onto a virtual head and place that into an astronaut's suit, then find a lunar flag online in the SketchUp 3D Warehouse, export that into Imaginality Create and change its texture to your country's flag.

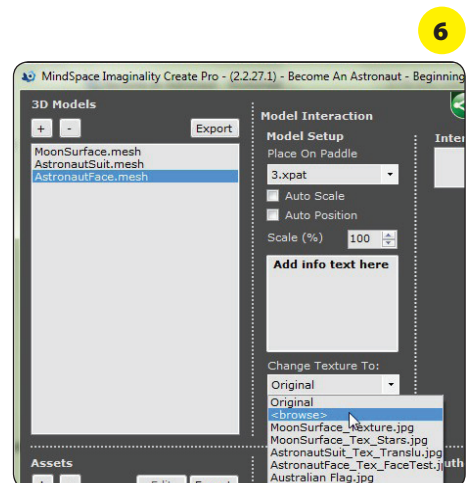
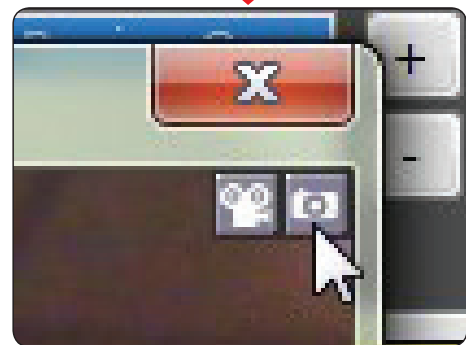
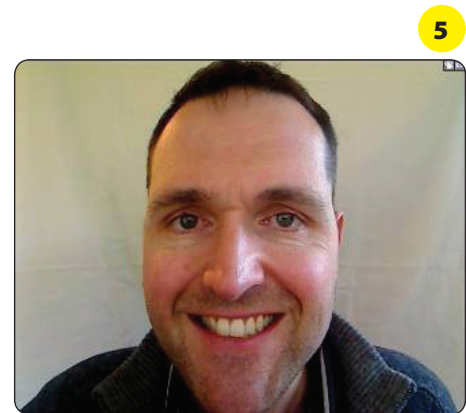
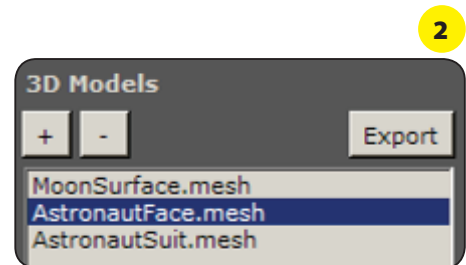
Loading the Module

1. Download '**Become an Astronaut.module**' from [here](#) and save it to '**My Documents/Imaginality/_Activities/Become an Astronaut**'.
2. Double Click on the module file. This will open Imaginality Create and load the module. The module should contain **MoonSurface.mesh**, **AstronautFace.mesh** and **AstronautSuit.mesh**. See **2**.
3. Click **Run in Webcam Mode** and explore **Paddles 1-3**.

Making a Virtual Head

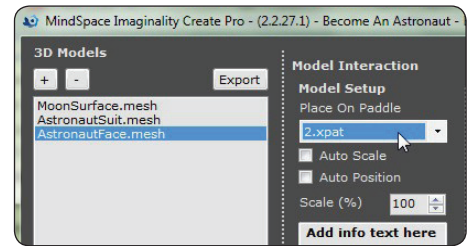
The first thing we want to do is get a photo of you to put on a virtual head in the space suit.

4. If you have a photo of your face we can use that, so skip to step 6. If not, we can use the webcam to take one, so continue to step 5.
5. If you don't have a photo, you can take one by clicking on **Run in Webcam Mode**. This will open a new window showing the image from the webcam. Make sure that all the paddles are out of the camera view, then position your head in the centre of the camera image, with your head touching the top and bottom of the image. Look into the camera, smile and take the screenshot by clicking the little camera icon in the top right corner. This will ask you to save your photo which, you can save to the same place as the module file. See **5**.
6. Now, in Create, click on **AstronautFace.mesh**, find 'Change Texture To:' and click on the drop-down box to select **<Browse>**. Navigate to your photo, select it, and click **Open**. See **6**.



Assigning models to Paddles

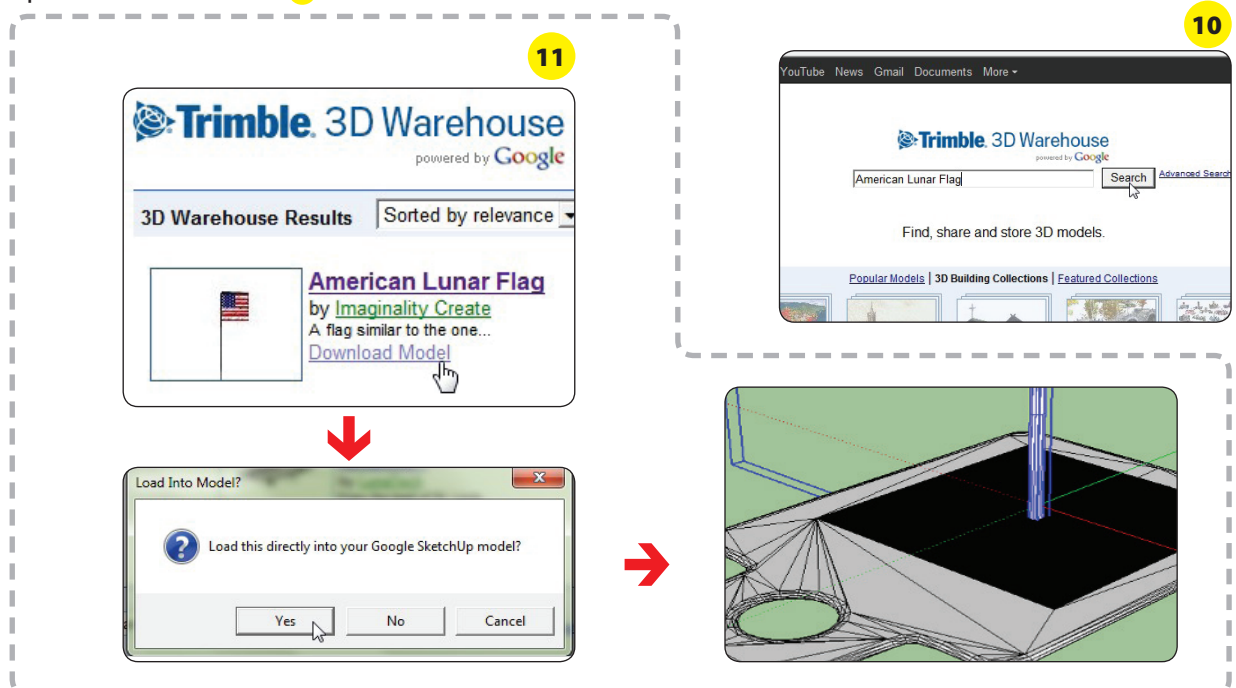
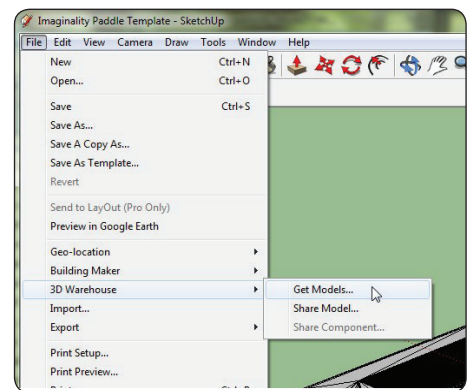
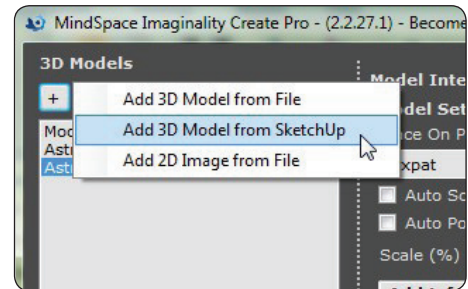
- Click **Run in Webcam Mode** and look at your virtual head on **Paddle 3**. If you are not happy with the result, repeat steps 5 and 6. If you are happy with the result, click on **AstronautFace.mesh**, find 'Place on Paddle' and click on the drop-down box to select **2**. Click **Run in Webcam Mode** and look at your virtual head – it should now be on **Paddle 2** inside the space suit. See **7**



Getting a Model from SketchUp

We now want to add a lunar flag from SketchUp.

- Under **3D Models**, click the + button. Then click on **Add 3D Model from SketchUp**. If you have SketchUp installed, SketchUp will open, so you can continue to step 9. If you don't have SketchUp installed, it will open the SketchUp Install Wizard. NOTE: You will need to be logged in as an Administrator to complete the Wizard, so please ask your teacher for help with this. See **8**
- Within SketchUp, click on **File -> 3D Warehouse -> Get Models...** See **9**
- This should open the 3D Warehouse. In the search bar on the home screen type '**American Lunar Flag**' and click **Search**. See **10**
- Find the entry which has the author '**Imaginality Create**', click on **Download Model** and if it asks for confirmation, click **Yes**. After download, the model should then appear in your SketchUp 3D view, attached to your mouse cursor. Place the flag on the paddle by moving your mouse cursor so it is roughly in the middle, on top of the paddle, then left-click to place the model. See **11**



12. Now export the flag to Create. You can either click on the button with the orange arrow, or choose **File -> Imaginality -> Export Selected to Imaginality Create**. You will now be asked to pick a name for your model, we recommend you enter **'Moon Flag'**. See 12

13. Return to Imaginality Create. Now that you know how to change a texture (from step 6), you can do this for your **Moon Flag**. You can change the US flag to a flag you prefer – both **"Malaysian Flag.jpg"** and **"Australian Flag.jpg"** are included in the module, so are available in the drop-down list. See 13

Test it out!

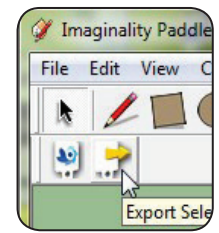
14. You can test this module out by pressing the **Run in Webcam Mode** button near the bottom of the screen.

15. If you are happy with the result, you can arrange **Paddles 1-3** on your desk as a scene and **take a screenshot** (like in step 5).

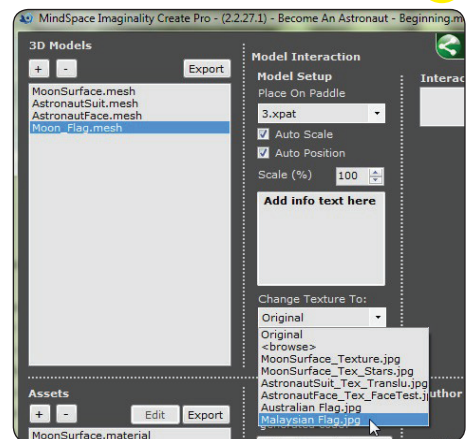
16. If you are happy with the result, you can **Share with internet** so that anyone you choose can view it for free. You will need to create a free author account and provide a short description of the module. You will then be able to either share it publically, or share it privately via email, twitter, Facebook, or other social networks.

17. If you want to save your module, click on **Save As**, and then type the name you want to give the module and where you want to save it. Then press **Save**. Later, you can **Load** the module again.

12



13



Other things to try

18. Do some research on: the [Moon's surface](#), [space suits](#), [the lunar flag](#). Summarise your findings in a few sentences and enter them into Create so that they will appear on the info paddle. Select the appropriate mesh, and replace **Add info text here** with your text. Now, when the info paddle comes close to the relevant paddle, the info paddle will contain your text – you can enlarge it by pressing spacebar. Or, simply show the relevant paddle and press spacebar to reveal your text.

19. Add a play audio interaction to add music or sound effects that suit the lunar environment.

20. Add more models to different paddles, create scenes with them and create a story – see the Activity: "Story Creator – On the Moon".

21. Write a list of the five elements that you think are most different between standing on the moon and standing on Earth. For each element, note why you think it is important. Discuss your list in a group: present your ideas; listen to comments from other students; respond to these comments; listen to other people's ideas and comment on them. As a group, can you decide on the top five elements? Apply the same process to the following lists:

- A list of the five things you think are most important for an astronaut to survive on the moon.
- A list of the five reasons that you think are most important for astronauts to travel to the moon.