

# 3ds Max

## Assignment 1 - Character design and modelling

### Part A

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1. Come up with a design for a **simple robotic character** that you can model in 3ds Max. Bear in mind that although the character is a robot, it will still need to walk properly. Your robot must have at least two legs and it cannot move using wheels. This will be the character that you will then model, texture, rig and animate.

**Do not copy an existing character such as Bender from Futurama or Marvin from Hitchhiker's Guide to the Galaxy. Your character must be original.**

See the Multimedia blog for previous projects showing examples of good robotics characters from previous years: <http://mm.up.ac.za/blog/?cat=38>

2. Create **front view** and **side view** reference images for your character. The images need to show enough detail to allow you to model your character properly.  
(read part B to design your character according to the needed specifications)
3. Submit your reference Images (in pdf format) in the appropriate submission slot before the due date.

### Part B

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4. Place your reference images in 3ds Max using the correct method. When you are finished, each image should be on a plane and the planes should be at right angles to one other.
5. Using the reference images and everything you have learnt about modelling, create the model of your robot.

Your robotic character must contain a certain level of complexity - the following specifications apply:

- a. It must move along the ground using **legs**. Floating through the air or moving on wheels is not allowed.
- b. Its body must contain some **organic curves or surfaces** (i.e. it cannot simply have square edges everywhere)
- c. **No part of the body may contain primitive objects which have not been modified.**
- d. Its body must have some sort of **detail** on it in the form of armour, control panels, decoration etc.

## Tips

- The best shapes to use when modelling are boxes and cylinders. Objects like spheres could cause problems later.
- Aim to keep your polygons 4 sided to prevent problems later.
- Aim to keep all polygons a similar size.
- Name every object appropriately
- Model only one side of the body and then make a copy for the other side. This will save a lot of time and keep things uniform.

## Submission Instructions

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1. Save your 3ds Max file as **Surname\_a1.max** (where 'Surname' is your surname).
2. Place your .max file **and the reference images** in a ZIP folder called **Surname\_a1.zip** (where 'Surname' is your surname).
3. Upload your ZIP folder to ClickUP before the deadline.
4. Download the folder again and open the .max file to ensure that the reference images display properly (they will not display if the file path is absolute instead of relative)

## Marking

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Your model will be marked according to the following criteria.

Take note that the impression of the quality of your model and your understanding of the modelling tools counts half of the total mark.

| Criterion  | Marks     |
|--|-----------|
| Left and front reference images present  | 2         |
| Reference images set up correctly  | 2         |
| All objects named logically  | 2         |
| All polygons are 4-sided<br>(1: Quite a few not quads; 2: A few not quads; 3: all quads)   | 3         |
| No unedited primitives visible<br>(1: Quite a few visible; 2: Few visible; 3: none visible)  | 3         |
| Organic curves visible<br>(1: poor execution; 2: average execution; 3: good execution)   | 3         |
| Model shows that student understands the modelling tools<br>(1: little/no evidence; 2: some evidence; 3: average; 4: good understanding; 5: excellent understanding) | 5         |
| Overall impression of model (level of effort, complexity, appearance, completeness)<br>(1-2: bad; 3-4: below average; 5-6: average; 7-8: good; 9-10: excellent)      | 10        |
| <b>Total</b>   | <b>30</b> |

NB: Note that the overall impression mark is worth 33% of the total mark for this assignment. This means that you should spend a large portion of your time making sure that your robot does not look generic or like it was simply constructed out of primitives.