



2022
24th ANNUAL SKILLS CANADA MANITOBA
COMPETITION
VIRTUAL EDITION
CONTEST DESCRIPTION

CONTEST NAME: 3D Game Art

CONTEST NO: 50

LEVEL: Post-Secondary

IMPORTANT DATES FOR VIRTUAL CONTESTS:

February 7, 2022 - Registration for the Skills Manitoba Competition begins

March 18, 2022 - Competitor registration deadline

April 4 – 14, 2022 - Skills Manitoba Competition

April 12, 2022 - Deadline for student's work to be submitted

April 14, 2022 - Student's work to be evaluated by this date

April 20, 2022 - Results to be posted on the Skills Manitoba website and social media sites

Date	Time	Task
April 7 th , 2022	1:00 pm-2:00 pm	Orientation
April 14 th 2022	9:00 am - 12:00 pm	Competition 3 hours
	12:00 pm - 12:30 pm	Lunch break
	12:30 pm - 5:00 pm	Competition 4.5 hours
April 14 th		Judging

PURPOSE OF CHALLENGE:

3D Game Art is a demanding competition designed to challenge artists to create 3D

game ready assets. This competition aims to simulate real world production from concept to delivery.

Description of the associated work role(s) or occupation(s)

<https://www.skillscompetencescanada.com/en/skills/information-technology/3d-game-art/>

SKILLS AND KNOWLEDGE TO BE TESTED:

- Visual design of a model from photographic examples through sketching
- Creation of a 3D models to a specification
- Creation of a UV layout for the model
- Creation and application of textures for a detailed model
- Creation of a simple environment to display the model in context, including lighting

Employability Skills:	Preproduction:	Production:
Communication	Interpretation of a Design Brief	3D Modelling
Time management	Creation of Concept Art	Texture mapping & UV Unwrapping
Planning		Exporting to a game engine format
Attention to detail		File Management
		Appeal of Final Product

PROJECT DESCRIPTION:

Due to the ongoing Covid-19 crisis, this year's competition will be virtual. You will complete the competition on your own with your own computer and software and share your images and working files to Google Drive folders set up by the Technical Committee. To ensure the competition runs smoothly, you must have high speed internet and a private working space. You must do all the work independently only during the day of competition and upload your ongoing working and completed files throughout the day to folders assigned. Additionally, you must be prepared to share your desktop through

screensharing. The platform for the contest will be described and presented to registered competitors well in advance of the contest.

Overview

You will model and texture the environment and assets described below. The intention of this competition is to create original artwork. All assets must be created on the day of the competition. You will model, UV map and texture the inside and outside of a “Sci-Fi” Spaceship Crew Quarters as an “isometric” model.

You are expected to practice modelling the elements prior to arriving at the provincial competition.

Art Style

This year’s theme is “Sci-Fi” (Science Fiction). The visual style is based on realism. Competitors should aim to create realistic surfaces on their models while maintaining reasonably low poly counts on the models. Employ lighting to create a realistically lit scene. See reference images for further direction.

Spaceship Crew Quarters

The competitor should approach the creation of this scene as though it could be used as a part of a larger game environment. Due to the time constraints of the competition, model only the assets requested. There are no additional marks for additional assets. You are asked to export and present your finished scene to SketchFab for submission.

The task is to model a small living space/bedroom aboard a fictional spaceship. The spaceship is designed for humans. The living space is utilitarian and only provides for basic needs. Economy was more important than luxury when this space was designed. The general atmosphere should be dark and gloomy. The ship is in orbit around a rocky and desolate planet that resembles Earth’s moon.

Exterior: The spaceship is an older ship that has been in service for decades. The ship is in service as a cargo vessel. There is wear and tear obvious inside and out of the ship. There is evidence of minor exterior damage, and the exterior coating is worn and scratched in places. There are markings and connection ports on the exterior walls. There is one window on one of the walls.

Interior: The ship interior has evidence of long use. The walls, surfaces, and floor are grimy and scuffed from years of use.

The sleeping area should be placed against a wall. The sleeping area consists of a bed or sleeping pod, and storage for clothing or personal items. Within the room, there is

also a table with seats for 1-2 people. Mounted somewhere, a tv with entertainment and ship communications is on.

Interior Props:

- Bed
- Storage furniture
- Table
- Seats/Chairs
- Screen/TV/Monitor mounted to a wall somewhere

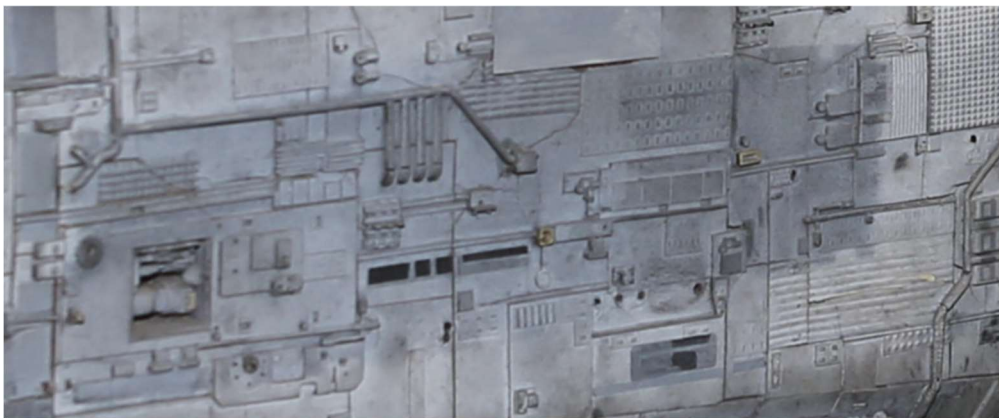
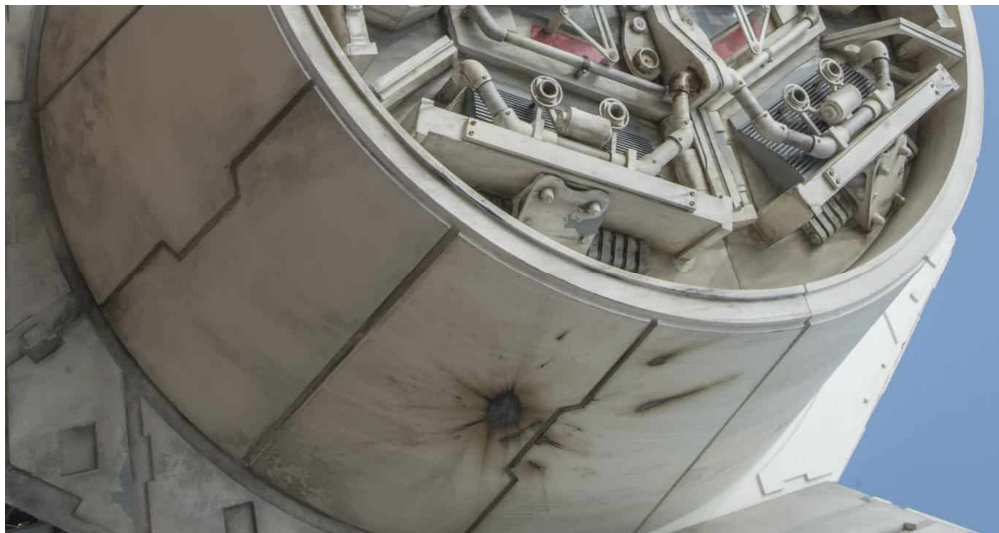
Exterior:**Exterior Props:**

- A planet should be seen from the window
- Stars should be visible as the backdrop (sky map)
- Multiple connection ports and other details on the side of the ship
- Decals on the outside of the ship (safety notices, connection information, etc.).

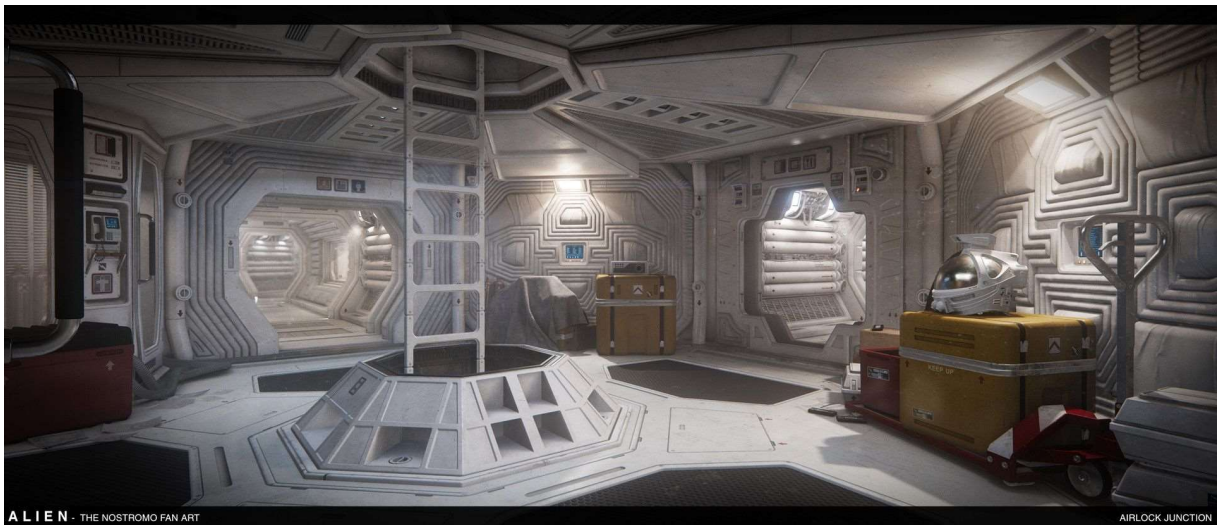
The model should be designed in isometric style so that when you turn the model, you can see the both the inside and exterior details. You will design two exterior walls. Your building should be built with only two walls and the floor to allow a view of the interior. You are to model the floor, and two outside walls. One of the walls should have a window looking out into space.

Lighting: Create and customize suitable lighting to present your model in Sketchfab.

Exterior Reference Images



Interior Reference Images



Isometric Rooms

<https://skfb.ly/6OvWL>

<https://skfb.ly/6HVpt>

<https://skfb.ly/6NAsv>

<https://skfb.ly/6HwBB>

Interpretation of the Design Brief

The expectation of the artist is that they will research the architecture, props and other details based on the description of the era and place. The visual style should be guided by the style of the reference images provided. You are not expected to

replicate everything you see in these images. Work towards creating a new piece of artwork that complements the examples.

Polygon count

Model and map your scene. Use your choice of 2D and 3D software. The finished piece should consist of no more than 14,000 polygons in total. The texture maps you create for the model are limited to a maximum resolution per map. You can use as many 4K maps as you choose if they are on different channels, i.e., Albedo, normal, bump, metal, transparency (alpha) etc.

Submitting your work

During the competition, you are required to submit evidence of your progress by submitting your working 3D files via a provided shared Google Drive folder. Each competitor will be given a folder on the drive into which specific files must be placed at specific times.

Export to Sketchfab

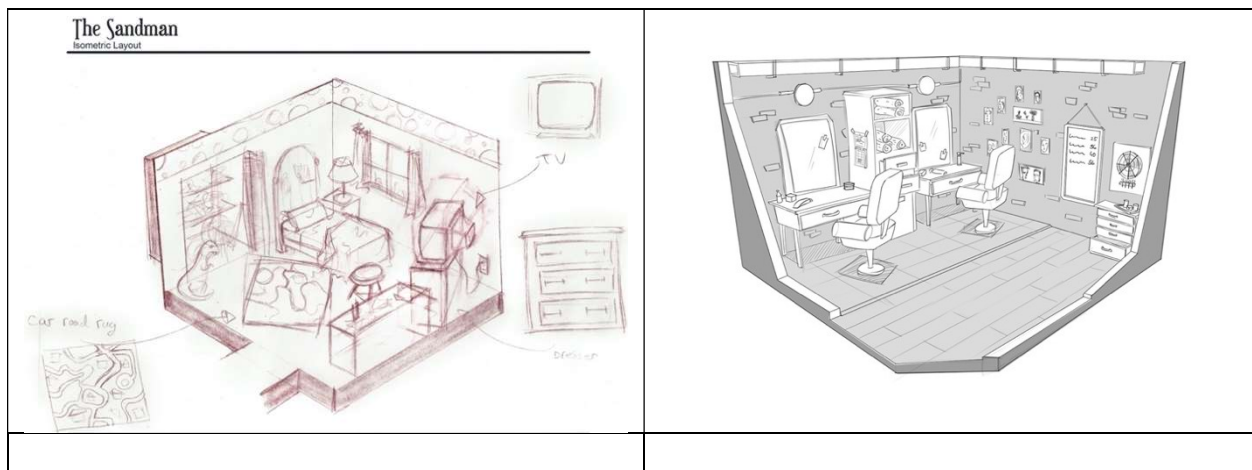
When you have completed your work, export it using a file format recognized by Sketchfab. When the upload process is complete, spend some time adjusting the background, cameras, lights, and effects to present your scene.

Concept Art

It is to your advantage to prepare well ahead of the competition and before starting work on your models and maps by collecting reference images and sketches. You may create your concept art weeks before the contest date as you train.

Original Concept Art that matches the design description (brief) shows colours and texture and at least two views of each object. **Submission or creation of concept art is not required.**

Example Concept Art



EQUIPMENT AND MATERIALS:

Virtual Competition Resource Support Form

A \$40 competition resource subsidy is available to all competitors of the Skills Canada Manitoba Competition – Virtual Edition who are required to purchase items for their respective competition. It is intended for items that were purchased to support competitors. (e.g., food supplies, materials, technical equipment, tools etc.) Please complete the Virtual Competition Resource Support Form found on the Skills Manitoba website. Please note that receipts or a school invoice are required:

The 3D Game Art competition will be BYOD, (Bring Your Own Device for each competitor.)

Suggested Hardware Requirements:

- Intel Graphics Workstation i7 Quad Core Processors or better
- 1 TB HD
- 16Gb RAM or more
- Dedicated video card (suggested 2GB) as approved by Autodesk
- Flat Panel Display 1920 X 1080
- Sound card
- Network Card/Wi-Fi
-

Competitors can bring whatever 3D and 2D software they are comfortable with but no prebuilt files, rigs, materials, or texture libraries.

Suggested software:

- 3D Software: 3D Studio Max, Maya, Blender, Substance Painter
- 2D Software: Adobe Photoshop or Illustrator. Autodesk Sketchbook. Krita, Clip Studio or GIMP.

Additional Equipment and material suggested.

- Tablet and driver (Driver compatible with your system)
- Headphones
- Pencils and erasers

SAFETY RULES / REQUIREMENTS:

The health, safety and welfare of all individuals involved with Skills Canada Manitoba are of vital importance.

At the discretion of the judges and technical committees, any competitor submission can be denied should the participant not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

All competitors must complete and submit a Safety Checklist with your project submission. The Safety Checklist is located in the Skills Manitoba Competition Information package as well as on the Skills Manitoba website.

Submissions will not be judged if the completed Safety Checklist is not included in the submission.

SPECIAL CONDITIONS / ADDITIONAL INFORMATION:

Ethical Conduct: We recognize that participants will be competing individually in their own schools and therefore not all conditions can be monitored. However, we expect all competitors to compete fairly, respecting and abiding by the established rules in the true spirit of Skills Canada Manitoba.

Supervision of Competitor: Competitors will be required to have an adult with them that is qualified /competent in the contest area, to both supervise and ensure safety.

COVID 19 Protocol

Please follow all established COVID 19 protocol as per your school and Manitoba Health guidelines.

NATIONAL COMPETITION ELIGIBILITY:

A mark of **70% or higher** must be scored by the gold medalist in each contest in order for them to attend the National Skills Competition

POINT BREAKDOWN/JUDGING CRITERIA:

POINT BREAKDOWN	/100
Part 1: Organization and Management Interpretation of the Design Brief	5 10
Part 2: 3D Modelling Texturing UV Unwrapping	25 25 25
Part 3: Export to Game Engine and Presentation	10
TOTAL	100

FAQ

What do I design? You will create the assets listed above.

What software can I use? You can use any 3D software that allows you to export as FBX or OBJ and import to Sketchfab.

Adhere to competition specifications? Work that does not conform to or exceeds the specifications described in the design brief will not be judged and will be disqualified.

How much time do I have? This is a 7.5-hour competition, all tasks must be completed by the end of the competition. Submissions are required during by the end of the contest.

Can I use the Internet as a resource? Competitors may use the internet for reference during the creation of concept art and for online help but not for ongoing coaching. All model assets must be created onsite. Pre-existing assets or models cannot be used and cannot be stored on the cloud to be used at the competition. The use of procedural materials and “smart materials” with Substance Painter is acceptable. Competitors are expected to be online and be prepared to share their screens at all times.

Can I use my own tools? Yes, you may bring Digital Drawing tools such as tablets or Cintiq. You are responsible for troubleshooting and maintaining your devices. If you bring your own tablet, please bring your tablet drivers to the competition.

Do I need to stay in the contest area the whole time? Yes, during the contest official hours all competitors must remain within the contest area, as specified by the Provincial Technical Committee.

Can I communicate with my coach during the competition hours? No. You can only communicate with your coach outside of the competition hours, before or after the competition begins or ends for the day.

Models will be judged on Sketchfab. Please ensure you have an account and have practiced uploading and viewing models beforehand.

THE IMPORTANCE OF ESSENTIAL SKILLS FOR CAREERS IN THE SKILLED TRADES.

Essential skills are used in nearly every job and at different levels of complexity. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change. Good Essential Skills means you will understand and remember concepts introduced in technical

training. The level of Essential Skills required for most trades is as high as or higher than it is for many office jobs.

The following 9 skills have been identified and validated as key essential skills for the workplace:

Numeracy, Oral Communication, Working with Others, Continuous Learning, Reading Text, Writing, Thinking, Document Use, Digital.

Essential Skills Required for..... :

TECHNICAL COMMITTEE MEMBERS CONTACT INFORMATION:

Derek Ford fordd@assiniboine.net