



Pre-Release Project

EVENT: 3D Digital Game Art	LEVEL: Post Secondary / Secondary
EQUIPMENT DROP OFF, SET-UP AND TESTING MAY 7: 4:00PM – 5:30PM	LOCATION: Hall B Edmonton Expo Centre, Edmonton
COMPETITION START & END TIMES: MAY 8: 8:00 AM – 4:30 PM MAY 9: 8:00 AM – 2:00PM (Detailed schedule below)	REGIONALIZED: NO
DURATION: 14.5 hrs. (2 days)	WORLD SKILLS TRADE #: 50

Please Note: This document is subject to change as competition information is updated. Competitors are responsible for staying up to date with the most recent information. Check the footer for last updated date. Changes will be highlighted in yellow.

3D Digital Game Art 2023 Overview:

There are **three** major parts to this pre-release document: overall theme of the contest, the concept art brief and the sample project for practice purposes.

If you have more questions about the event, please see the Contest Description for more details.

During the competition, you will be challenged with 6 modules to demonstrate your skills. Please note, for 2024 Modules 3 and 4 are judged together. The other modules are independent of each other. This ensures that one issue does not compound on itself in another module. Each module will have a distinct submission requirement. For the final module, you will combine your results from each of the modules to create a final scene. The modules will allow you to demonstrate:

1. Your ability to create basic concept art based on a provided design brief.
2. Your ability to model a hard surface object and a sculpted organic object
3. Your skill with UV unwrapping and surfacing models
4. Your skill to prepare a model for animation and provide a basic animation for one or more components
5. Your ability to combine files and publish them on a platform.

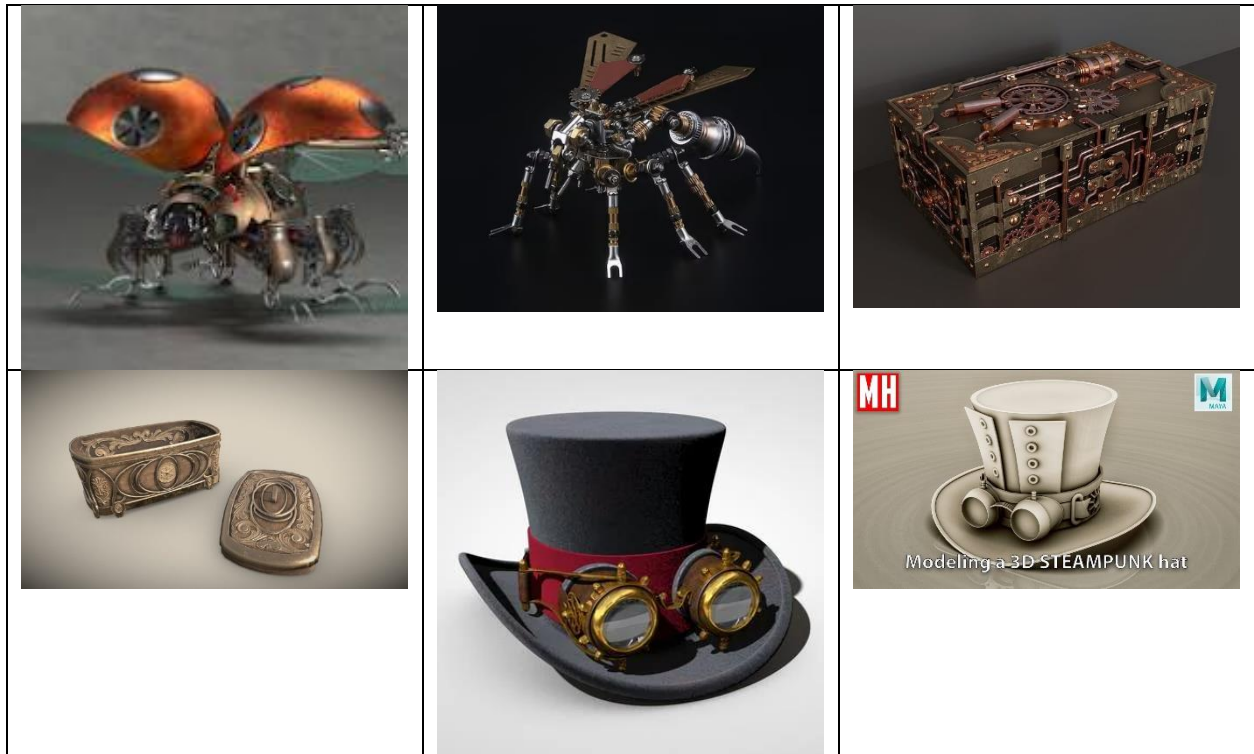
The 2024 Overall Project Theme

The overall theme for your 2024 contest project will be: **Steampunk**

Each asset that you will work with will fit within this genre. If you are unsure what steampunk is, I recommend spending time researching and discovering assets that you believe suit the style.

For each module you will be provided more concise design briefs as the modules are released to competitors during the competition.

Here are examples of assets you may be asked to create:



**all images are credit to their creators and are used for example purposes only.*

The 2024 Concept Art Brief

Module 1: Concept Art

The first module will test your ability to create effective concept art related to the design brief presented. You are tasked to generate a concept art sheet as you would see in industry.

Your images must demonstrate your understanding of perspective, shading, and proportion.

The item you will be required to create concept art for is: **A steampunk mechanical insect.**

Here are the required elements that must be shown in your concept art:

1. The insect must be able to fly in some manner.
2. The body of the insect must be made with a lightbulb. You are making a “light”-ning bug 😊
3. There must be gears, pistons, and other steampunk elements that provide insight into how the bug operates.
4. The insect must be presented from the front, the top, and a larger $\frac{3}{4}$ perspective.
5. The colors and shading should indicate what materials have been used to create your insect. EX: metal attempts to look like metal, glass attempts to look like glass.

AI cannot be used to support any of the work to be completed in this competition. Also, any references used for your work must be properly credited in your submissions. Using AI or failing to credit your references could result in disqualification.

Submission Guidelines

- € The concept art sheet should look as if it was prepared for industry. Here are some examples that you can follow to assist in the look.





- € All concept art images should exist in one Photoshop (or similar) file. Only one image will be accepted.
- € The image can be in the following formats: .PNG, .TGA, or .PSD
- € The resolution of the image should be 2560 x 1600 (2.5k 16:10)
- € Submissions will be collected by PTC members at the beginning of day 1 of the contest. (Communication systems will be explained on Day 1)



The 2024 Sample Project

This project is designed to demonstrate what the competition will look like. The look and feel of the modules will be nearly identical to the competition project, however the theme is vastly different. It is here as a guide to help you practice your skills leading up to the event.

Module 2: Modelling

You will be modelling two assets for this module:

- Item 1 (hard surface modelling) - Competitors will model a solid surfaced item. UV mapping is not required for this module. The model will only require materials like glass and metal and simple base colors. The required item is a **treasure chest**.
- Item 2 (sculpting) Competitors will be challenged to model an intricate sculpted object. No UV mapping required. The model will only require basic materials to demonstrate potential color use. The required item is the **Skull Chalice**.

Modelling Guidelines

- Appropriate distribution of polys.
- No more than 10000 tris for the chest, unlimited for the chalice.
- No Ngons for the hard surface object. The object is a focal object and will be animated.
- Clean unified geometry that can be used for animation.
- Designs conform to the design brief

Here are the design briefs for the objects:

Treasure Chest

The locked chest is very sturdy, constructed of Bolivian Rosewood panels and iron metal braces. It features some decorative elements in the form of gold accents and runes hammered into the iron. There is a fortified lock built into the front of the chest.

Skull Chalice

In the main treasure chamber an ominous object sits atop a wooden table. It appears to be a chalice made of a human skull. An eerie blue-green glow emanates from the cup. The stem is black as the night, but shines like the stars when the faint torchlight flickers. It is clearly made of obsidian. There are emerald gems affixed around the base of the skull. A crown sits on top of the skull, it is one you have seen before. It resembles the crown worn by King Richard the Lionheart. As you approach the chalice and look closer at the skull it appears to be laughing at you... or maybe it's trying to swallow your soul...



Module 3: UV Mapping

All competitors will be provided with the same unmapped models (usually 2) (FBX format) by the PTC. Competitors will create a UV map within their chosen 3D software. Auto UV unwrapping workflows are NOT permitted for this section. Submission of the UV map is required for judging.

For your practice project it is recommended that you unwrap the treasure chest you modelled and a cylindrical platform.

Here is a platform model for you to use: [Stone Platform](#)

"Stone Platform" (<https://skfb.ly/6TGst>) by filthycent is licensed under Creative Commons Attribution (<http://creativecommons.org/licenses/by/4.0/>).

UV Mapping Guidelines

- € UV Unwrap the objects provided.
- € Be mindful of texture distortion and stretching.
- € Create your UV map appropriate to the model and professional standards. This means you should group your islands by materials, stay within the 0 to 1 UV space, and scale of objects should be appropriate based on detail required.

UV Mapping Submissions

- € An image of the UV map in .PNG format, 2048 x 2048 resolution.
- € An .FBX file of your model with the UV Grid Texture applied from your modelling software of choice applied to show the UV distribution. Make sure to pack your textures with the .FBX file!

Note: The PTC won't penalize you if your texture does not appear. We can add a UV Grid texture to the models when we judge your work, but it does save us valuable time! You are also allowed to use auto UV packers! Be smart!

Module 4: Surfacing

Please note in 2024 the surfacing module will be presented and completed at the same time as the UV mapping module. In 2023 they were completed separately.

All competitors will surface the same provided object (FBX format). The competitors will have to generate simple UV maps for texturing. Auto UV mapping tools are permitted during this module. Competitors will use their preferred tools to create detailed surfaces. Surfaces and textures are expected to follow the design brief.



The object provided in 2023 is not compatible with the 2024 format, so we are not going to provide it. However, you should surface the following objects: the treasure chest, the skull chalice, and the stone platform.

Surfacing Guidelines

- € Materials and maps should use a PBR-Metallic workflow (Roughness, Metallic, Albedo/Base Color, Normals). A stylized look is encouraged as it is easier to achieve and provides more freedom however, to show mastery in your surfacing skills you could attempt a photorealistic look.
- € Base shaders and tones represent the model successfully and uses concept work to inspire colors.
- € Maps are baked and then exported to represent materials correctly. The appropriate maps have been created for the objects. Maps look seamless on model, no obvious joins or break in texture. This means that procedural materials will have to be baked. The asset must be compatible in multiple software applications (EX: Exporting for a game engine)
- € A variety of physical materials have been represented.
- € Multiple PBR maps have been used (normal, opacity, etc.). Any material you use will use the proper set of textures. Learn what they are!

Here are the design briefs for this module:

1. The treasure chest – use the brief from the modelling module.
2. The skull chalice - use the brief from the modelling module.
3. The stone platform – the platform is worn and has seen combat around it. There are pieces of debris stuck into the stone and moss has started to form around certain areas. The appears to be dark stains splattered on the platform, you shudder to think what could have cause the stain...

Surfacing Submission

- € Rendered images from your modelling application of choice. Use 1600 x 1600 as your resolution to frame the object. Complex lighting and background are not required. Use a simple HDRI and color management to show off your work. Provide renders in .PNG, .JPG, .TGA, or .TIF format.
- € Provide your models with surfaces completed in .FBX format. Make sure you pack your textures!



Module 5: Animation

The animation module was not a part of the Provincial 2023 competition. However, it was a part of the National 2023 competition. It is now a required part of the 2024 competition at both levels.

Animation Guidelines

- It is good practice to use bones to run your animation. This allows for the animation to import and be worked on in more applications. You won't be penalized for not using bones, but bones are best practice.
- Utilize the 12 principles of animation to ensure you create a captivating scene. 3D Artists should always look for ways to really make their work POP, and animation is a relatively easy way to accomplish this. For competition you will need to showcase at minimum 3 major principles of animation. EX: Exaggeration, Anticipation, Squash and Stretch.
- Your animation should be at 24 frames per second.
- The animation must be at least 1 second long and should be no more than 3 seconds in length.

Here is your design brief for the animation:

The chest shakes violently on the stone platform before popping open abruptly. A skull chalice slowly floats up from the chest and rotates in front of you showing off every grotesque detail. After 3 turns it stops suddenly and you watch your soul being sucked from your body...

Animation Submission

- Render your animation from your modelling software of choice in 1200 x 1200 resolution.
- Provide a .FBX file for each prop that has an armature (uses bones).

Module 6: Exporting & Rendering

Exporting & Rendering Guidelines

- In addition to the final presentation, ensure you have exported the individual assets as explained in each module at the end of each module.
- For the final module, competitors must combine all of the required assets into a complete scene. For the practice project you must utilize all the components you created within a treasure room scene.
- Prepare the scene, lighting, composition, and post processing effect settings in your chosen renderer.

Here is the design brief for you to assist in the lighting and composition aspects. **DO NOT MAKE EXTRA MODELS!** You are using the brief to understand what the lighting should be, how to pose the assets, and what post-processing effects you may need to add to make the scene feel finished.



Hidden deep in the layers of a dangerous and dark dungeon, lies the mysterious vault of stolen treasures. This room features sturdy grey stone walls. The bricks and cobblestones of the walls and floors are hewn from the same granite stone material. The door is constructed from heavy black iron and wood. The room is dimly lit by torches mounted to the walls. The torches are mounted to the walls with black iron brackets. Within the chamber, there is a large chest sitting at an angle atop a pile of loose treasure. The pile of treasure is a mix of gold coins, and colourful jewels.

Exporting & Rendering Submission

- render out a 1920 x 1080 .PNG or .TGA image of your treasure room. Ensure all required components are shown and well staged. We use 1080P at Provincials to reduce render times. Use your knowledge of your program to squeeze as much detail out in such a low-resolution format.

NOTE: For Provincials and Nationals 2024 competitors will be expected to use any extra time on surfacing objects that were not part of the module during the competition. You should plan for extra time at the end so you can do this. It will provide you extra points and could be the difference maker in podium spots.

Questions?

Please contact Whitney Koop at whitneyk@skillsalberta.com if you have any questions regarding the Pre-release Project.

COMMITTEE MEMBERS

Chair - David Brown

Member – Ethan Thomsen

UPDATES

Date	Description
Jan 29, 2024	€ Updated for 2024 competition format.