# Cosc 499 - ROSEN - C

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#### Abstract

This document is used for our team to understand the functionalities, purposes and expectations on Blender, a software that are required for our project.

#### 1 Software Functionalities

Blender has a few notable functionalities as stated on the Blender official website.

The followings are quoted from Blender official website.

#### 1.1 Animation and Rigging

Blender is being used for numerous short films, advertisements, TV series and feature films.

- Envelope, skeleton and automatic skinning.
- B-spline interpolated bones.
- Curve editor and dope sheets.
- Custom bone shapes for fast input.
- Sound synchronization.

#### 1.2 Drawing 2D in 3D

Blender opens unsurpassed workflow freedom for story-boarders and 2D artists.

- Combine 2D with 3D right in the viewport;
- Full Animation Support with Onion Skinning;

- Layers and Colors for Stroke and Fill
- Sculpt brush strokes and Parent to;

#### 1.3 Make it Your Own

Blender has a flexible Python controlled interface. Layout, colors, size and even fonts can be adjusted. Use hundreds of add-ons by the community or create your own using Blender's accessible Python API.

- Customize the interface layout and colors.
- Hi-res/Retina screen support
- Create your own tools and add-ons
- Draw over the OpenGL viewport
- Connect with Blender's Render API

### How to Download

As of the date of this document, Blender is at version 3.3, it is available to download on Windows, macOS and Linux :

https://www.blender.org/download/

## How it will be used in our project

Here are some useful tutorial on different aspect of Blender :

- Basic Controls : https://www.youtube.com/watch?v=Z8sg0nHNTTo
- An example of pipelines : https://www.youtube.com/watch?v=ZpplLg61efc