

Design Course

## Digital Representation Technique

Transforming Tangible Art into a Digital Platform  
by

Neha Alice Kerketta, Vajra, Pranisha and  
Chamandeep  
IDC, IIT Bombay

Source:

<https://www.dsource.in/course/digital-representation-technique>



1. Introduction
2. Concept Exploration
3. Final Hybrid
4. Transfer to Digital
5. Digital Rendering (On photoshop)
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<https://www.dsource.in/course/digital-representation-technique/introduction>

## Introduction

Digital representation is one of the fastest growing art mediums today because of the plethora of options it provides for the artist to explore and create. Digital representation is merely transforming tangible art into a digital platform. This module explores the ways in which hand drawn images can be translated to digital and then explored using these digital methods to animate and create a video output.



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<https://www.dsource.in/course/digital-representation-technique/concept-exploration>

## Concept Exploration

**Concept:**

Design and animate a hybrid creature taking inspiration from an animal and mechanical creature of your choice.



Animal Study



Machine Study

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## Animal Study

The first step is to collect relevant reference images to study the animal and then make a rough sketches keeping in mind these points.



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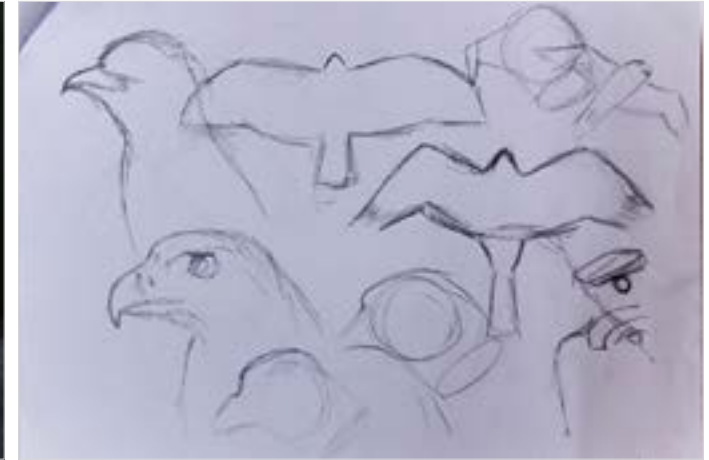
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a. Form - Overall shape of the creature.



b. Structure - Identify how different parts of the animal function.



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c. **Anatomy** - Learn how the muscles and bones work together to form the frame of the creature



d. **Locomotion** - Observe how the animal moves around and the nature of the movement. Eg: Sluggish and slow or Fast and light.



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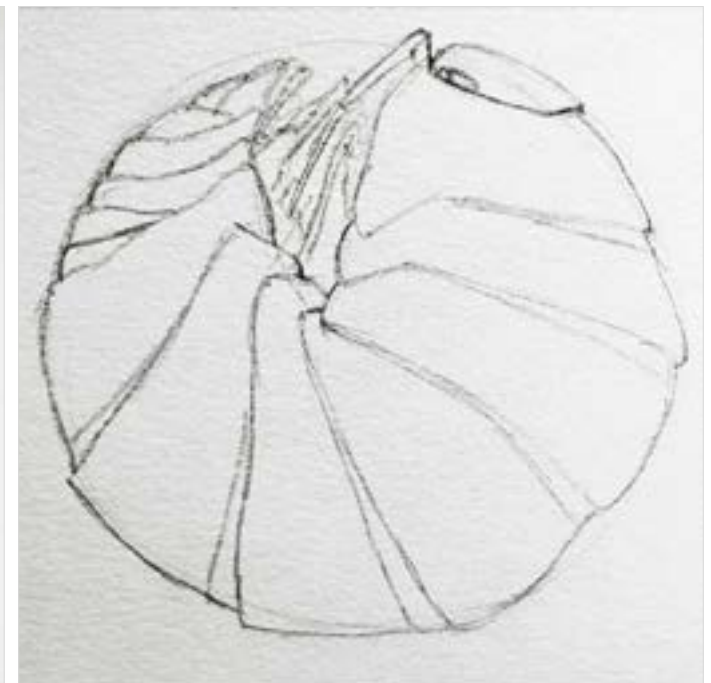
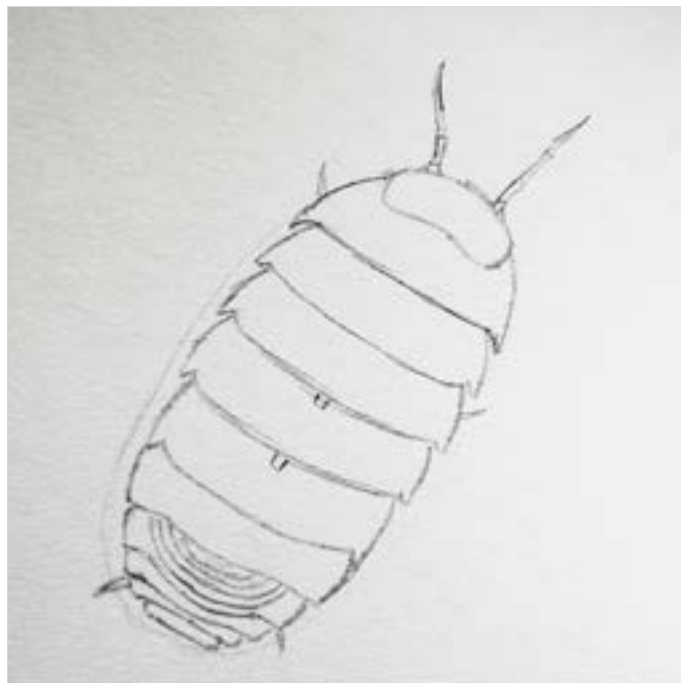
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e. Design details - Observe the various aesthetic points of the creature. Eg: Yellow of the beak.



More Examples:



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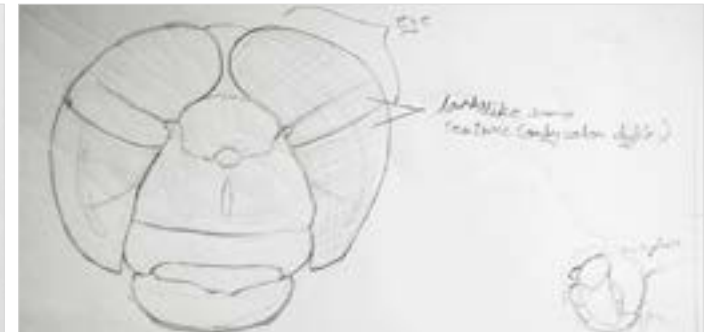
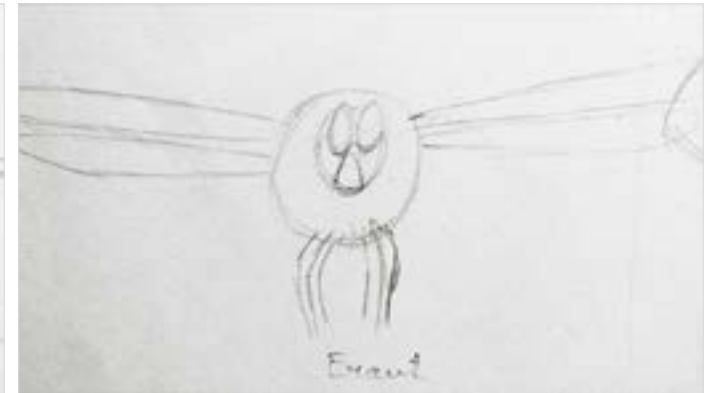
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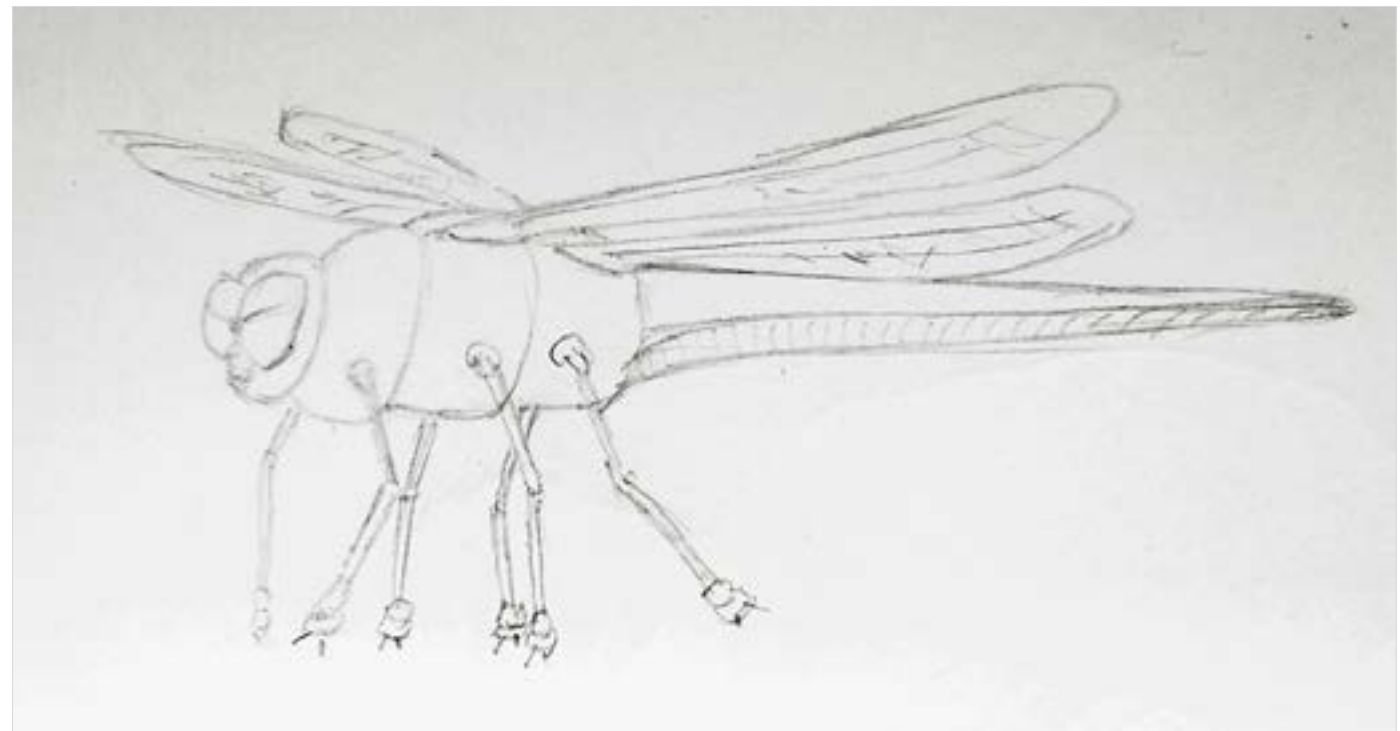
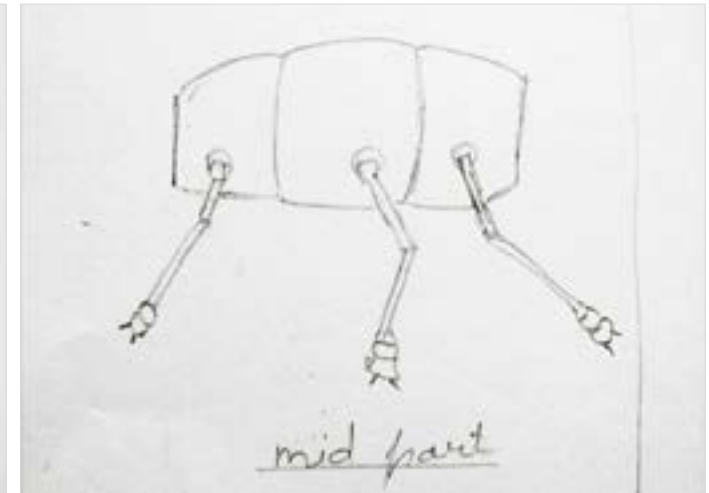
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## Machine Study

a. **Micro and macro** - For this, all parts of the machine need to be studied in detail. From the smallest functioning unit to the biggest.



b. **Functionality** - Study the function of each part and how they add to the overall features.



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c. Form - Study in detail the shape of various parts to understand semantic representation.



d. Mechanics - Understand the technical workings of the machine along with its peculiar characteristics.



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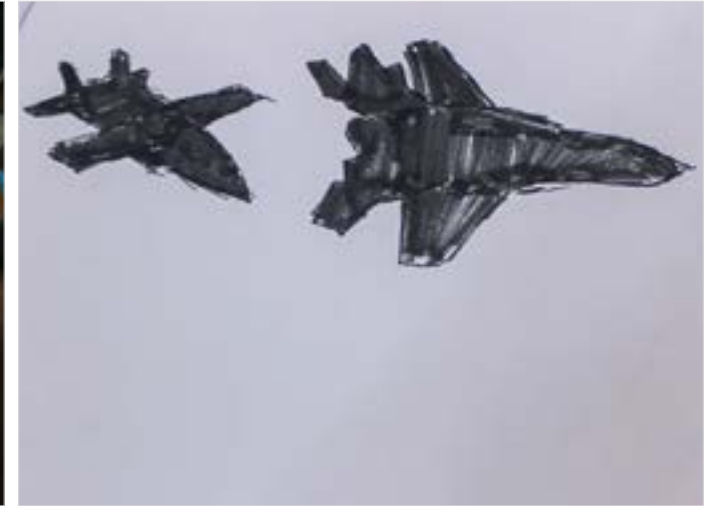
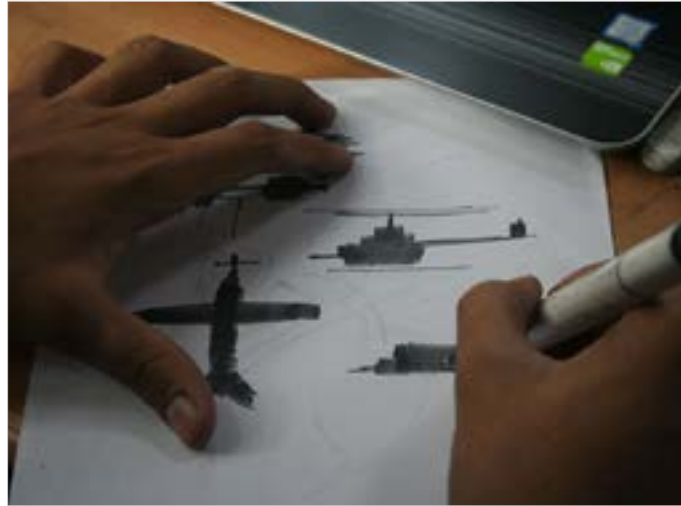
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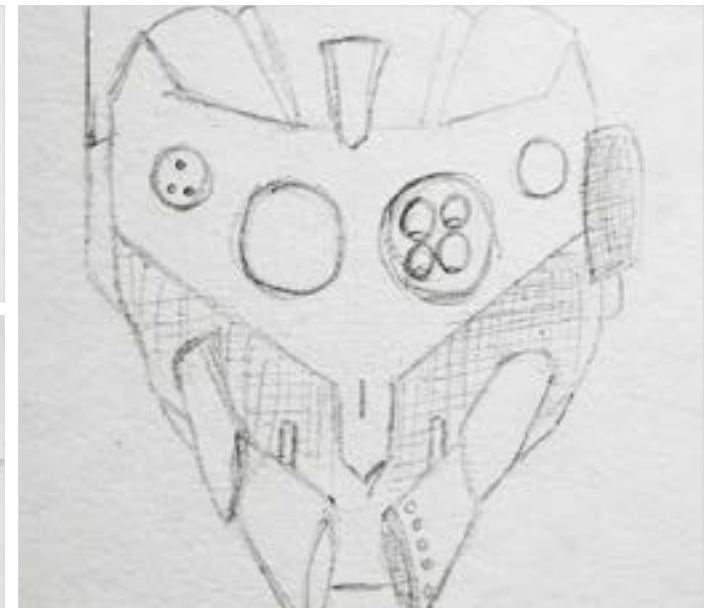
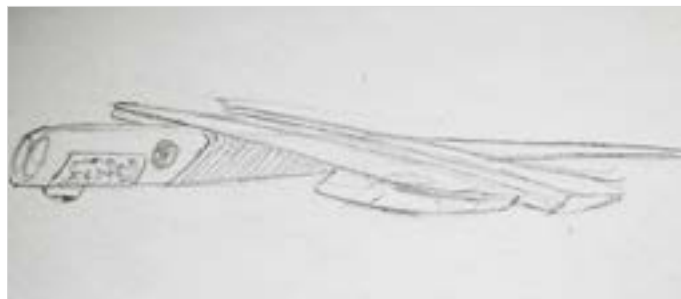
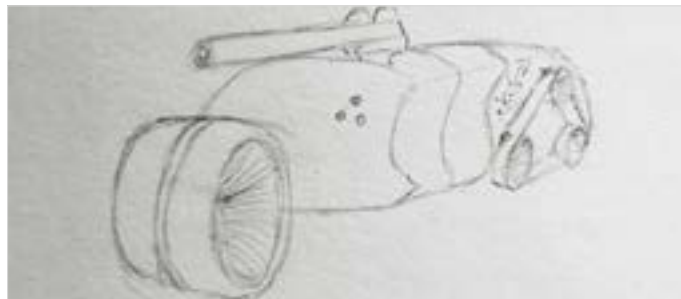
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**e. Simplification** - Understand the machine in a simplified form by blocking its silhouette to see the sum total of all parts.



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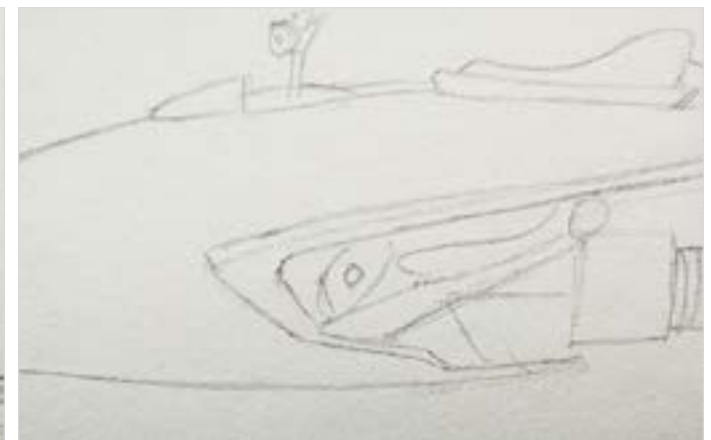
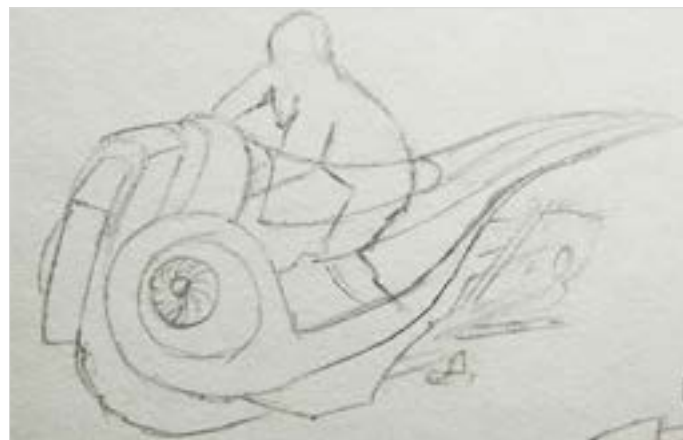
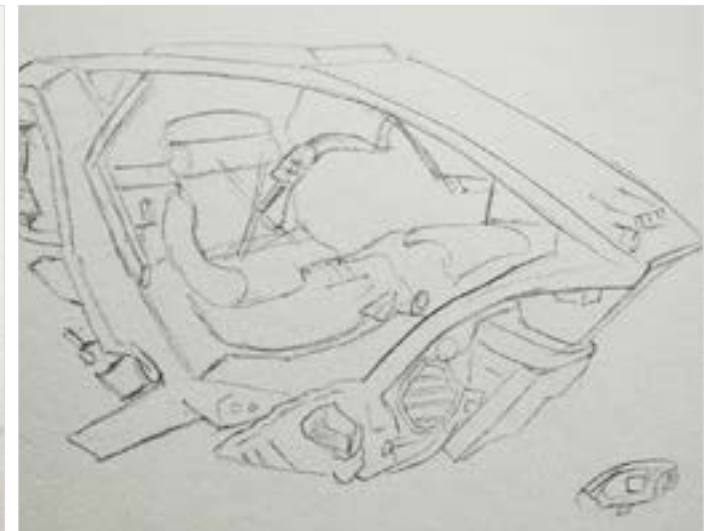
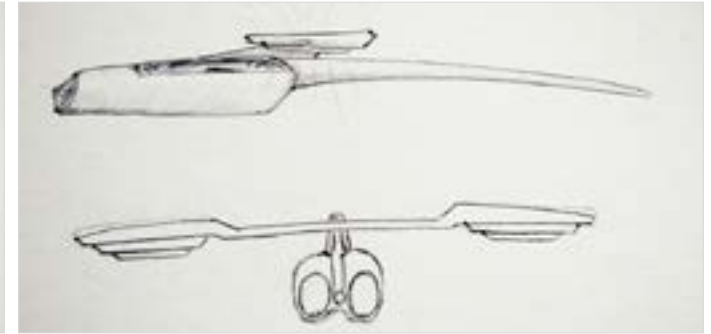
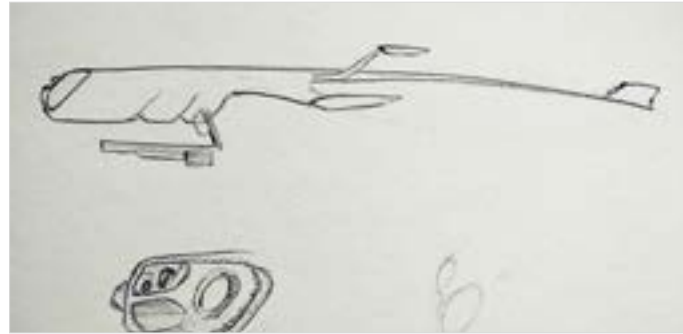
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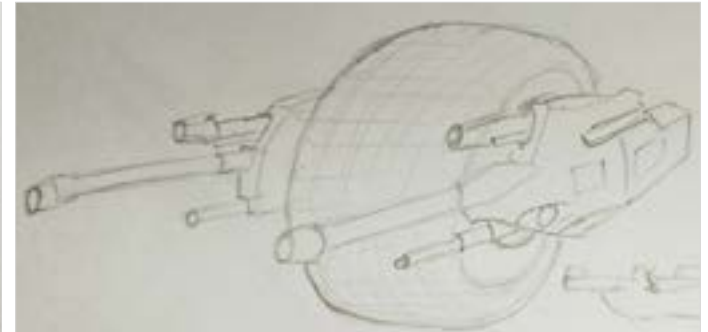
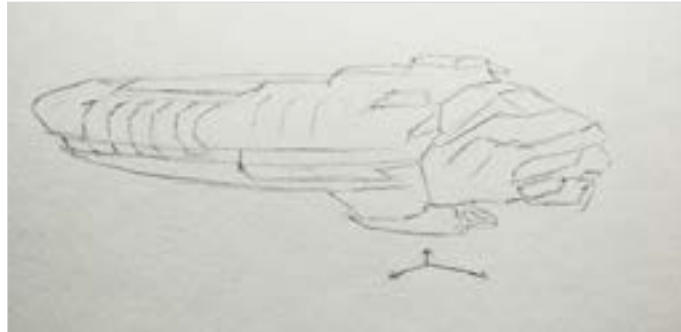
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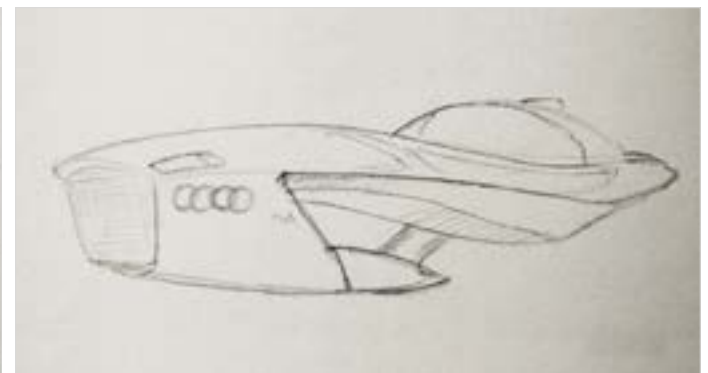
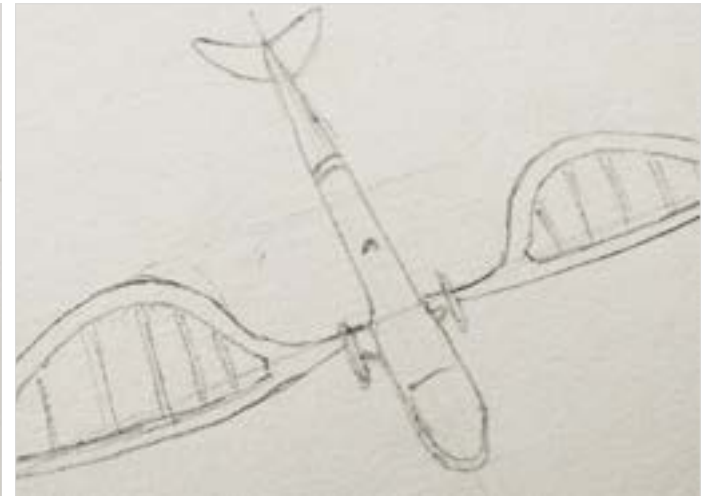
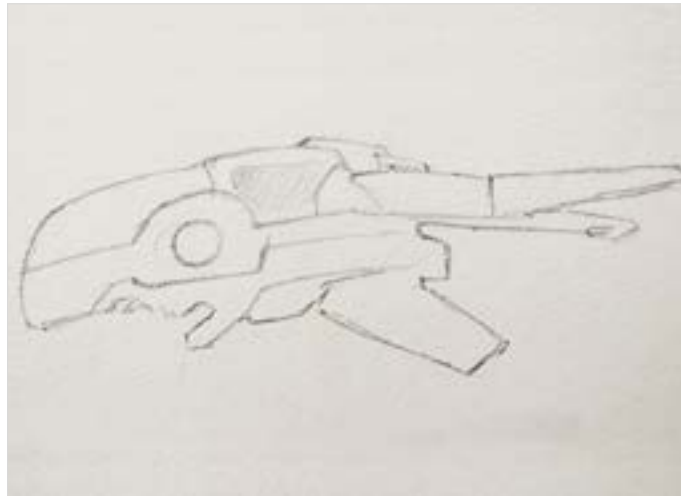
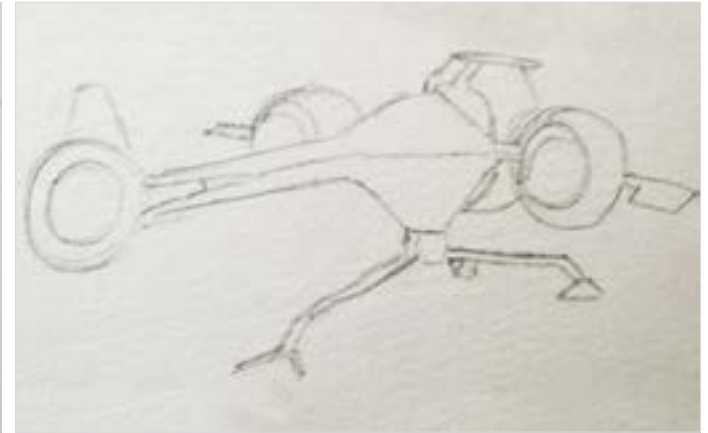
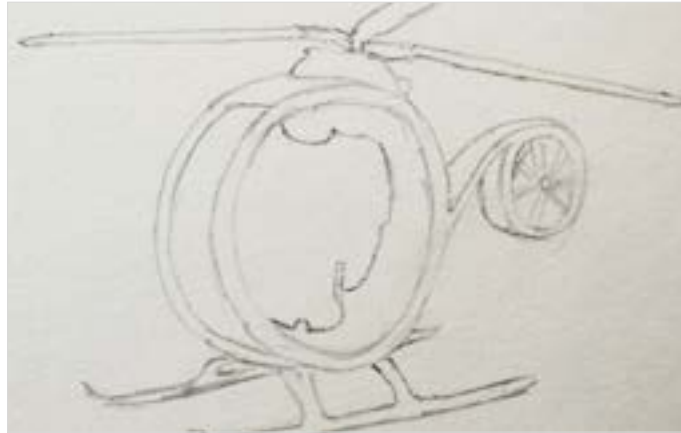
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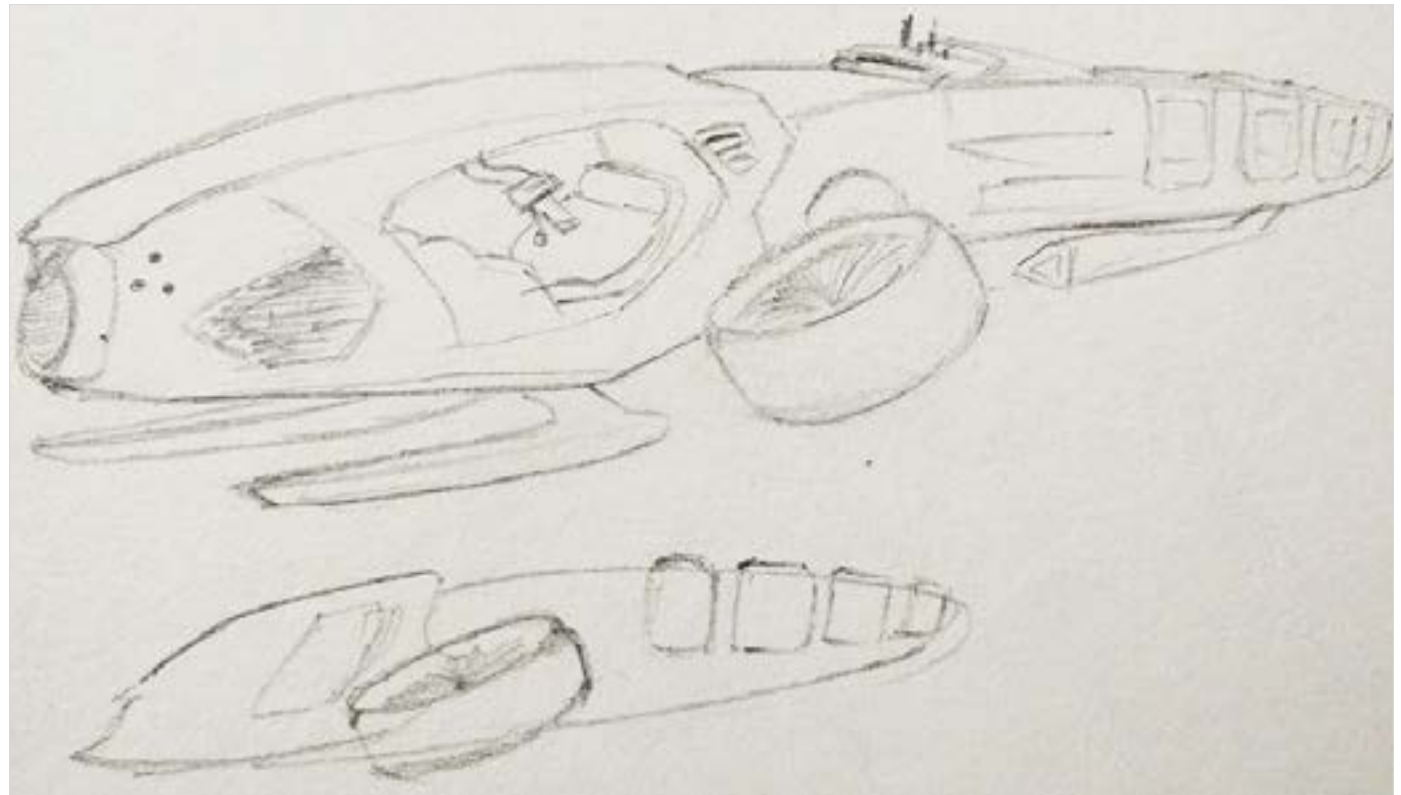
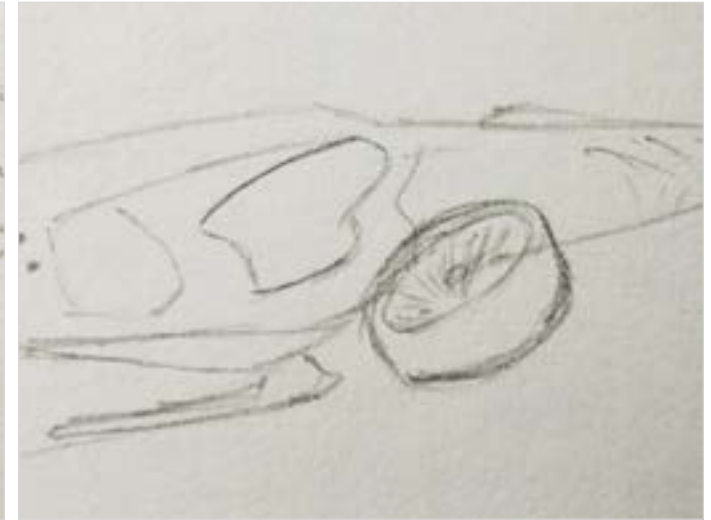
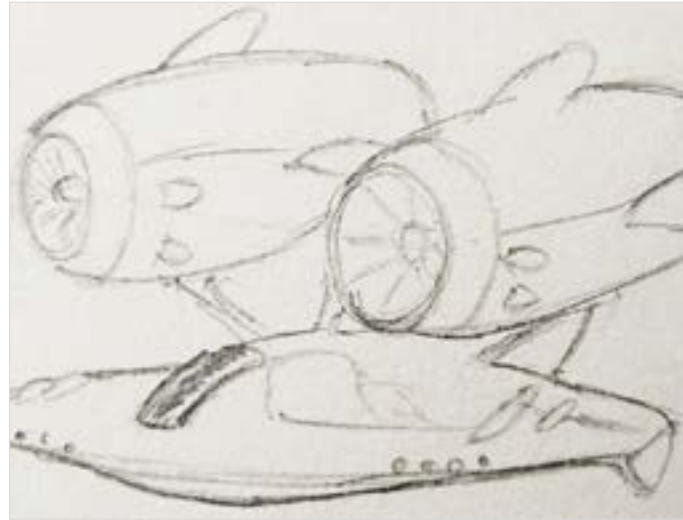
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## Final Hybrid

In order to create the final hybrid creature we Identify the common form

- a. Blending the body mechanics
- b. Identifying macro movements



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c. Balancing the visual form

d. Composing the final character



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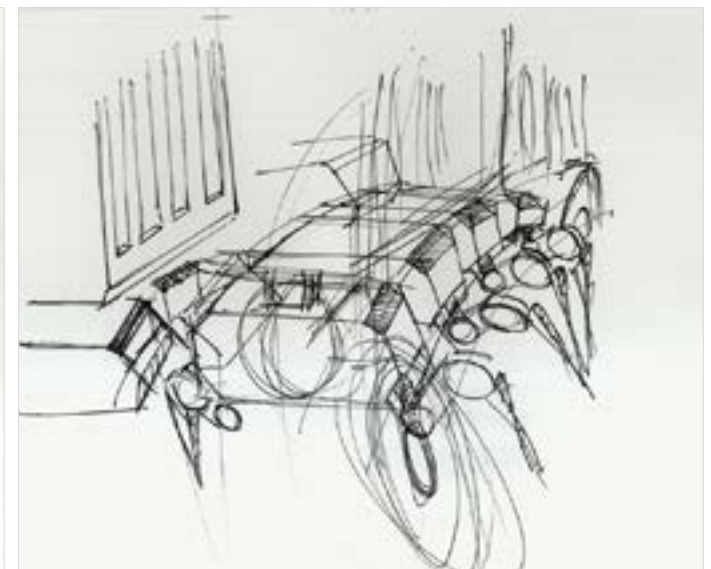
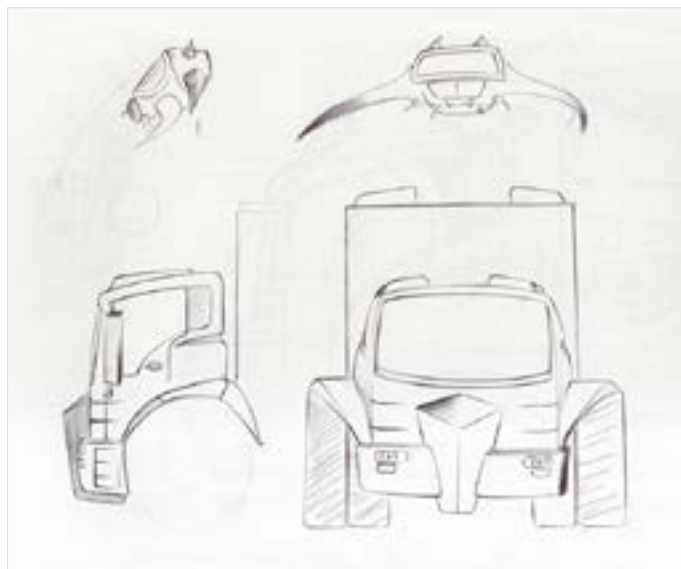
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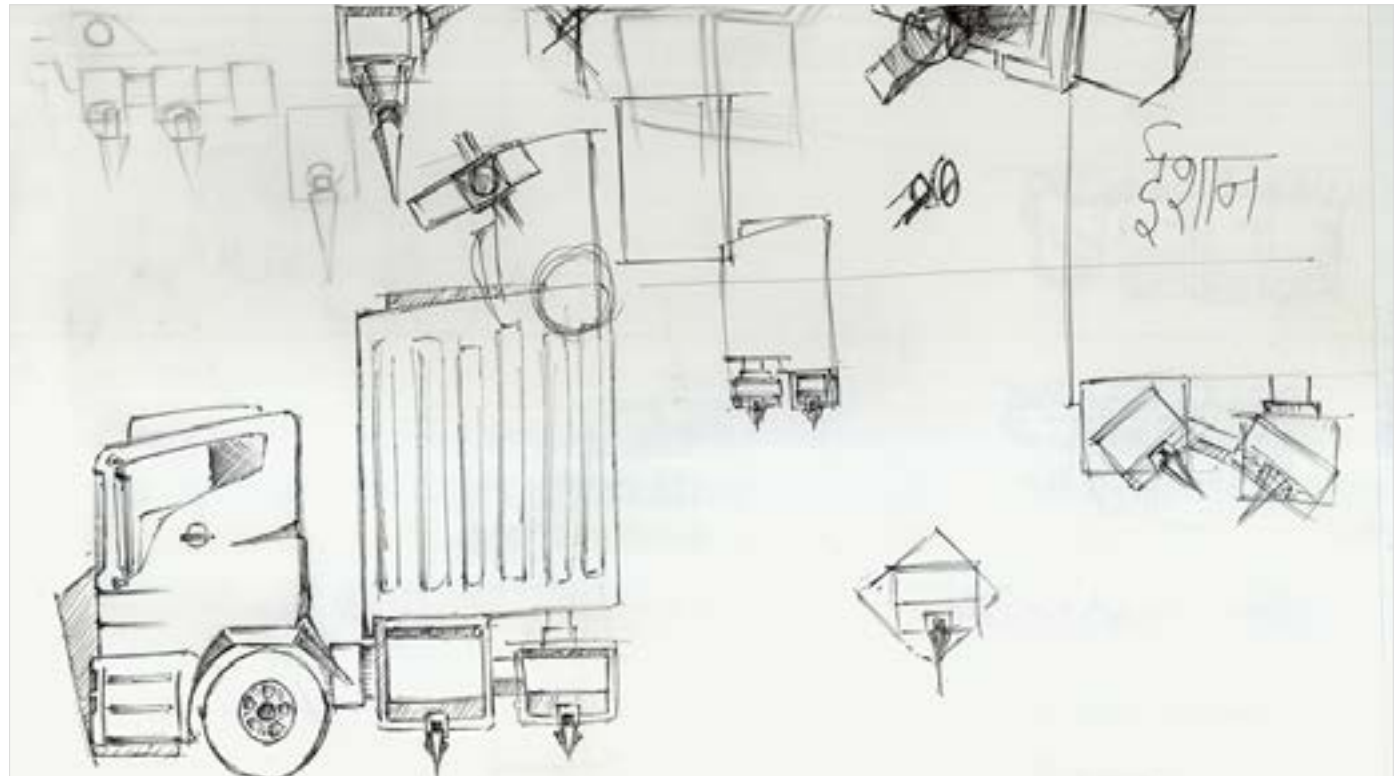
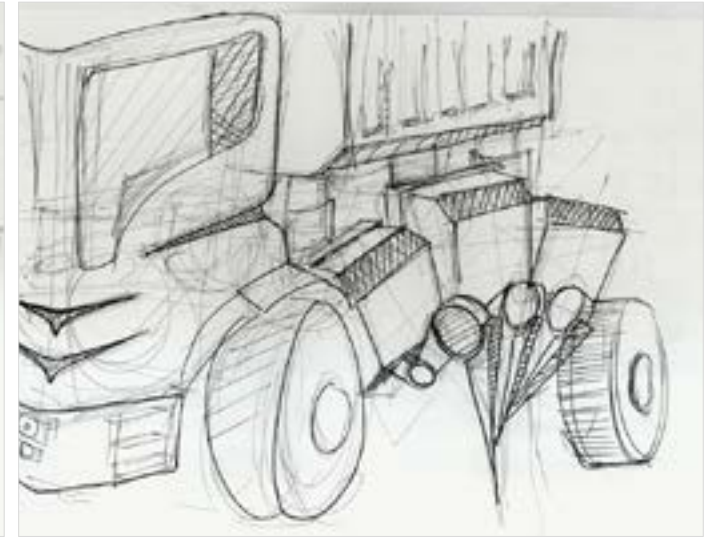
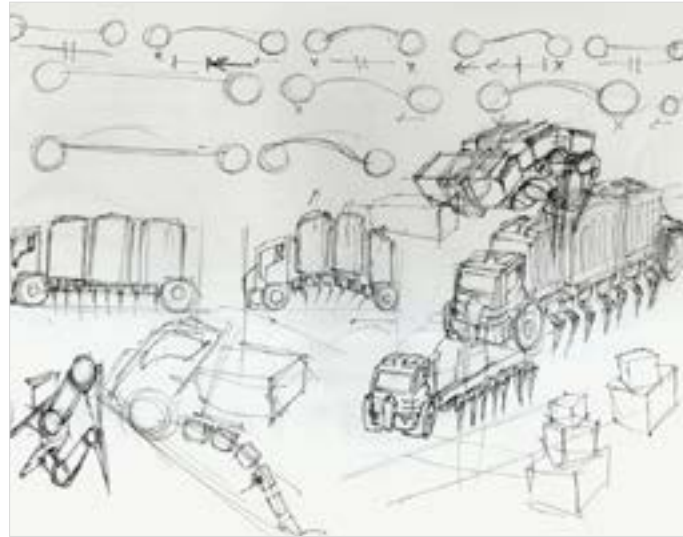
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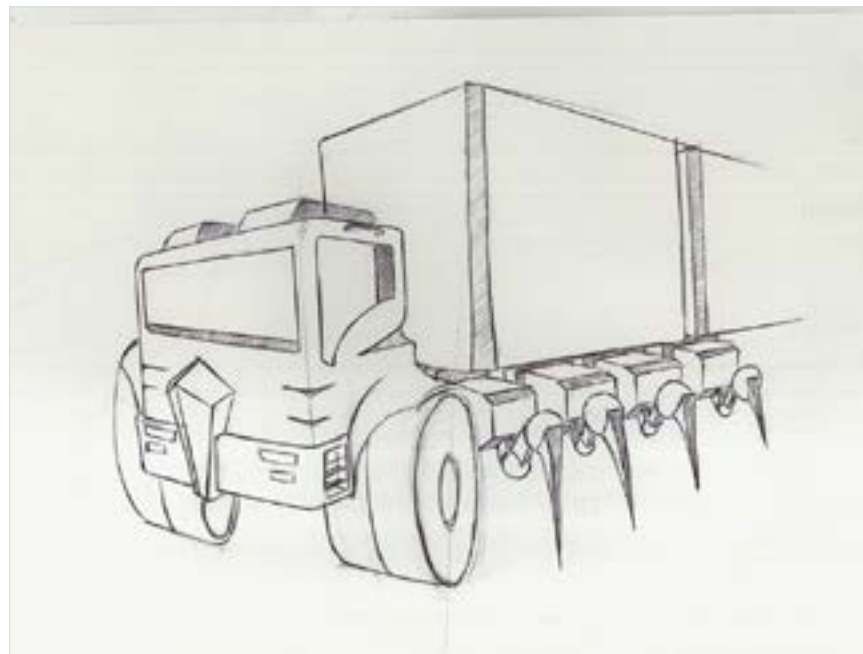
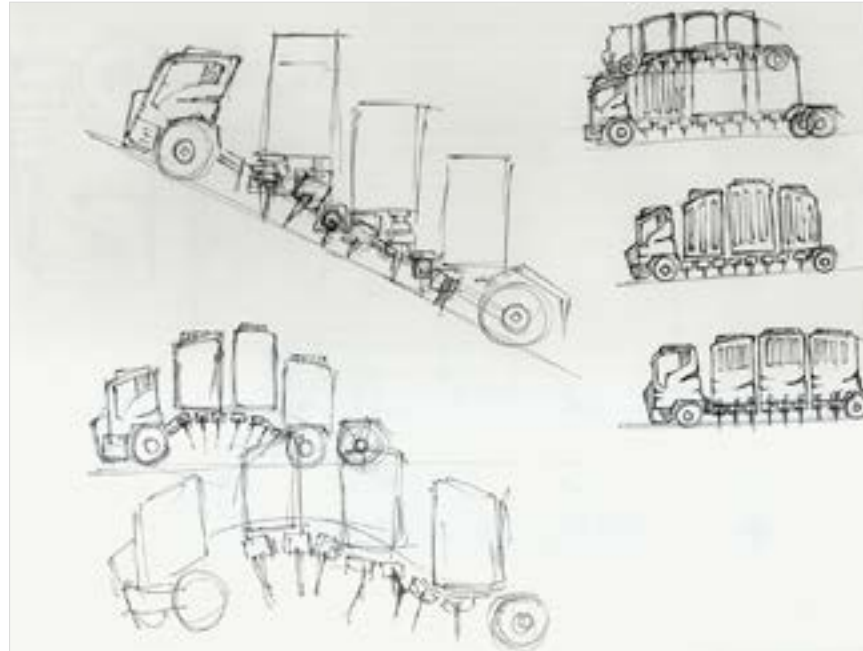
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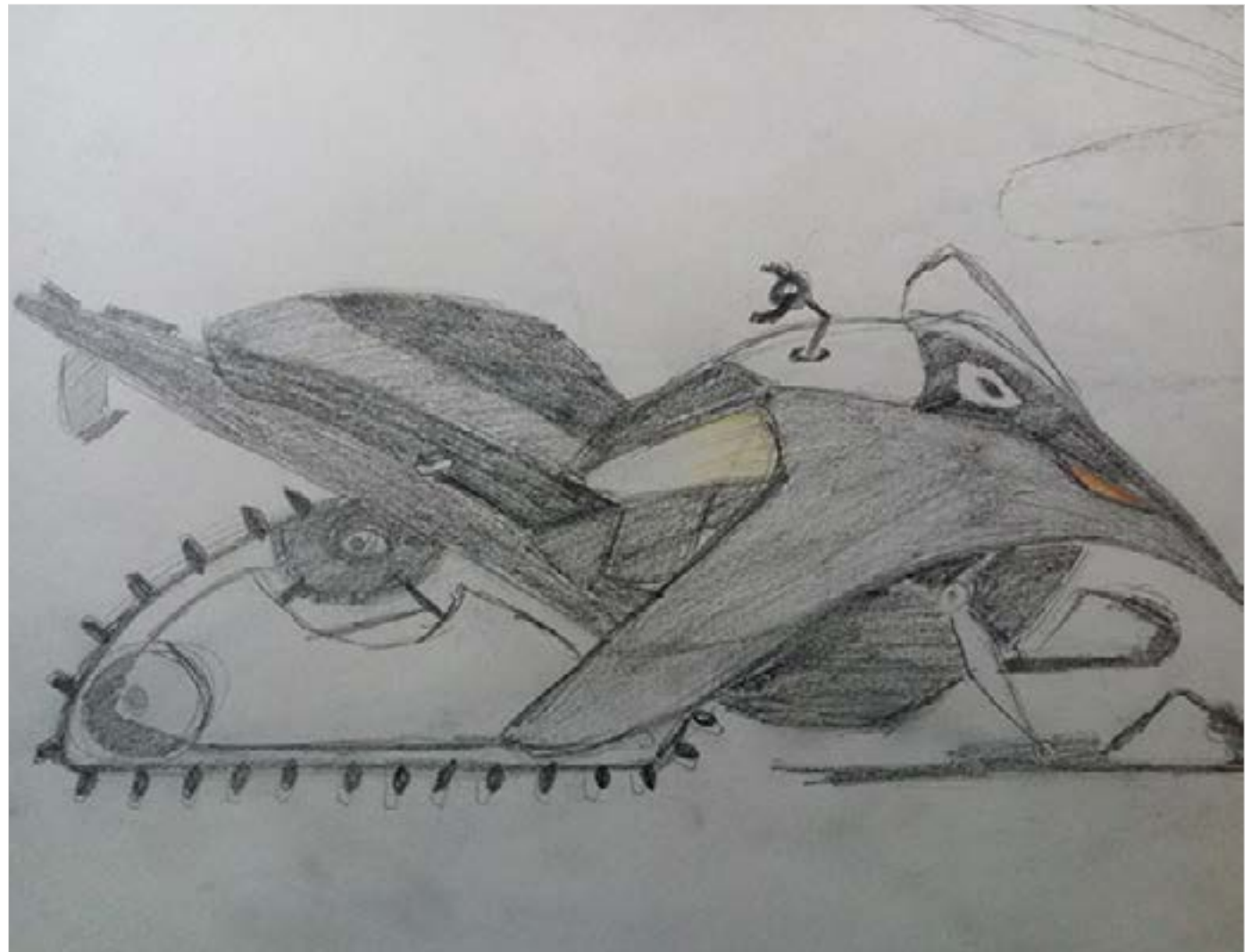
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## Transfer to Digital

We can now scan this image on a high resolution to make sure all the details of our drawing are intact. We can then open this JPEG scanned image on Photoshop and start working on it.

Scanned Image:



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## Digital Rendering (On photoshop)

While digitally rendering the image keep in mind the following:



a. Colour: The colour of the creature fused with that of the machine.

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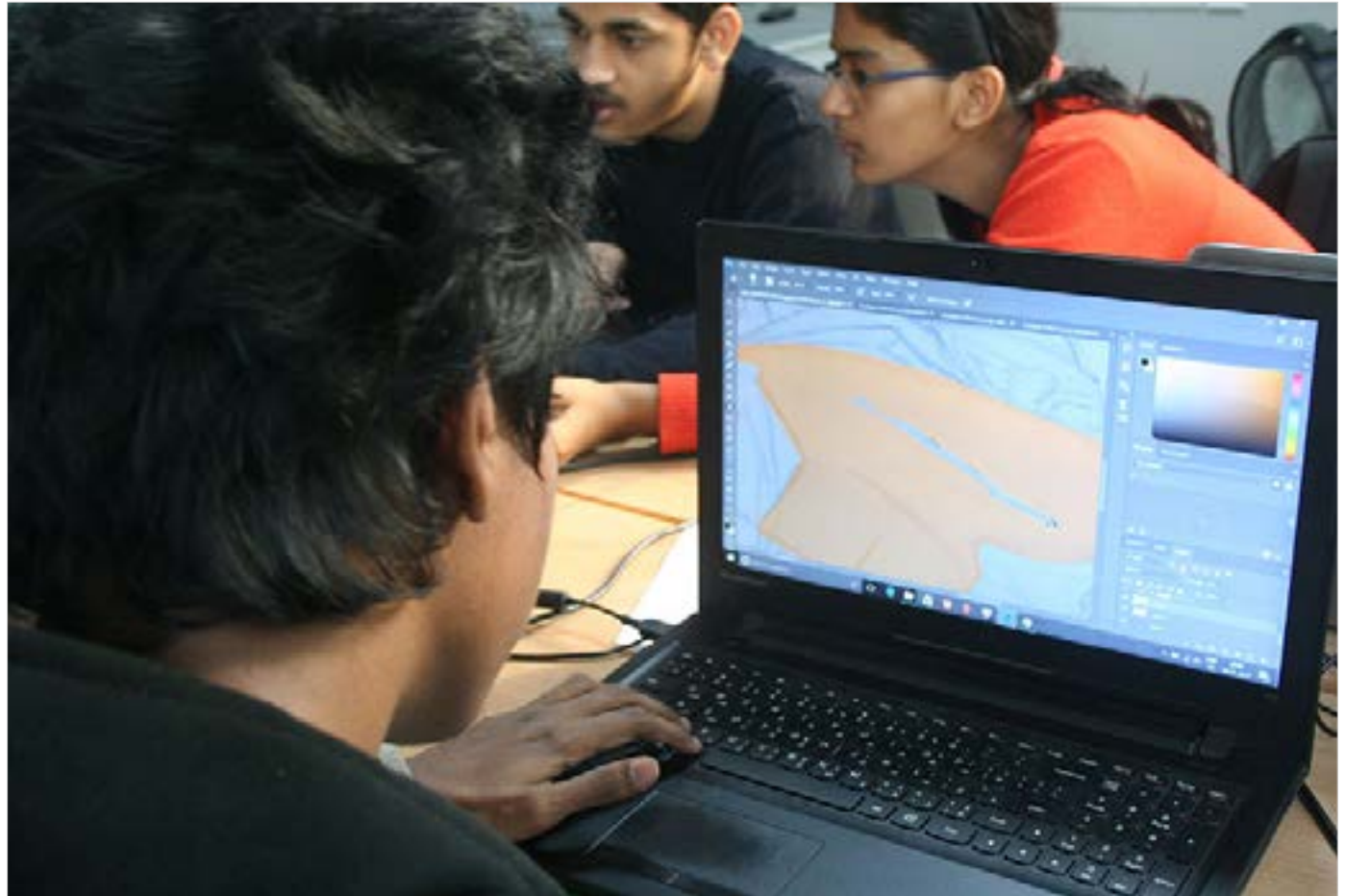
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**b. Lighting:** The scene should be well-lit so the features of our hybrid are in focus.

**c. Background:** Focus on creating a relevant background in the context of the hybrid creature.



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d. Material: Focus on the right depiction of material (of the machine) and texture (of the animal)

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e. **Workflow:** Draw different moving parts on different layers and name your layers to keep things organised.

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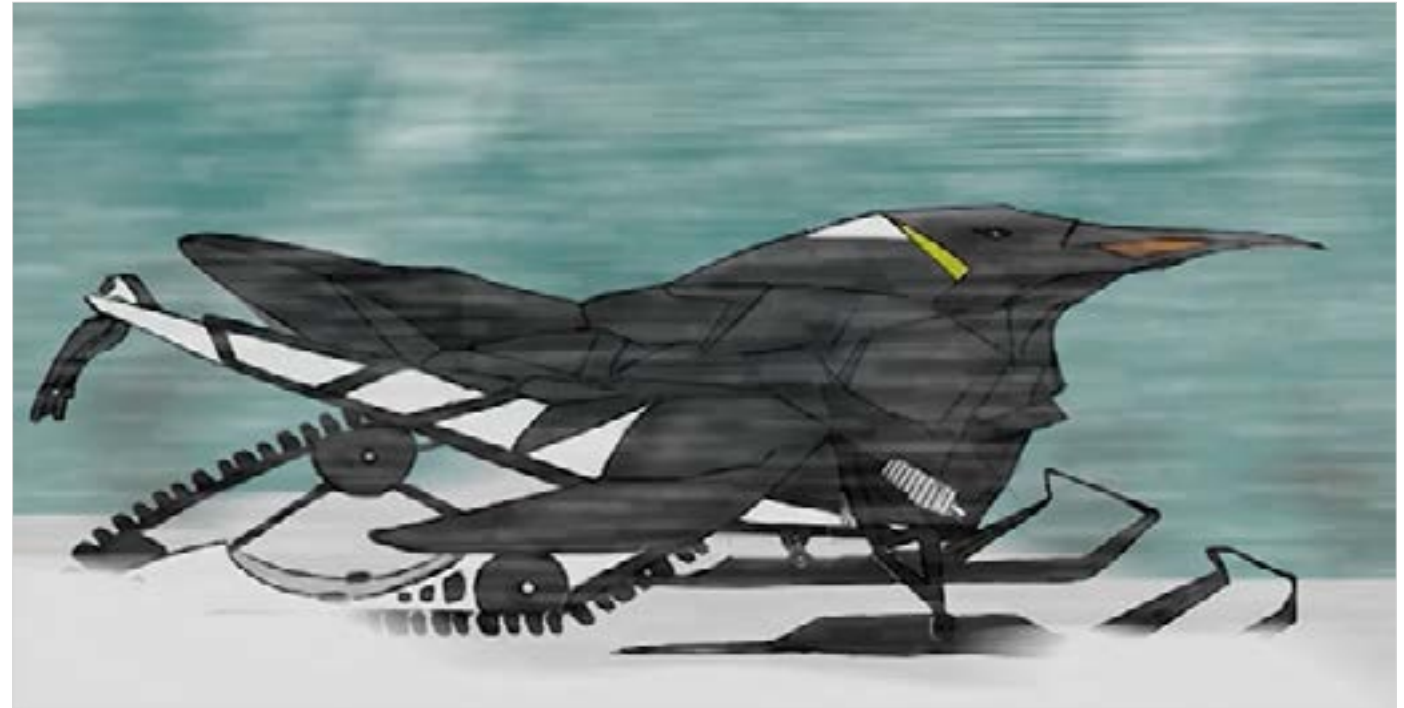
Neha Alice Kerketta, Vajra, Pranisha and

Chamandeep

IDC, IIT Bombay

Source:

<https://www.dsource.in/course/digital-representation-technique/digital-rendering-photoshop>



Final Hybrid Digital Sketch.

1. Introduction
2. Concept Exploration
3. Final Hybrid
4. Transfer to Digital
5. Digital Rendering (On photoshop)
6. Digital Animation (On After Effects)
7. Exporting Final Output
8. Video
9. Contact Details

Design Course

## Digital Representation Technique

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Source:

<https://www.dsource.in/course/digital-representation-technique/digital-animation-after-effects>

## Digital Animation (On After Effects)

### a. Assembling the scene:

Now that you have a fair idea of how your final hybrid creature will move, it's time to set up the scene. In the scene, you have to decide how to best display the characteristics of the hybrid and what movements should be brought about. Figure out how to show the hybrid entering or leaving the scene. The action that it will do and how the movements will be. Once decided we use simple methods in After Effects to animate the scene.



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**b. Workflow:** Make sure all your layers and effects are named and organised in order to access and make changes easily later or by someone else.



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## Exporting Final Output

**a. Resolution:** While exporting the final file in a video format keep in mind the resolution of the exported video. Full HD (1920x1080) is the most common ratio followed worldwide.

**Size:** Various file extensions will have different sized outputs. MP4 is the most sought after file format that allows good resolution and not very heavy files, unlike AVI or Quicktime.



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**b. Composing and packaging:** Make sure the video has the title of the work and credits to form a complete package.



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Final Output.



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Source:

<https://www.dsource.in/course/digital-representation-technique/video>

## Video



Digital Representation Technique - Hybrid Animation

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## Contact Details

This documentation was done by Neha Alice Kerketta IDC, IIT Bombay

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You can write to the following address regarding suggestions and clarifications:

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