

# 3D Arena Design using Blender

Author name: Ashlesha Borade  
Government college of engineering and research, Avasari

Published by: e-Yantra Team  
ERTS Lab  
IIT Bombay

IIT Bombay  
June 1, 2020

# Agenda for Discussion

## 1 Introduction

- Introduction to topic

## 2 Design of 2D Arena

- Structure and details of 2D Arena

## 3 Steps to design 3D Arena

## 4 Applications

# Introduction to topic

To create 3D arena design and model using Blender 2.82a software.

# Introduction to topic

To create 3D arena design and model using Blender 2.82a software.

- Software used Blender 2.82a

# Introduction to topic

To create 3D arena design and model using Blender 2.82a software.

- Software used Blender 2.82a
- Basic tools like Scale, Move, Rotate, Extrude, Material.

# Introduction to topic

To create 3D arena design and model using Blender 2.82a software.

- Software used Blender 2.82a
- Basic tools like Scale, Move, Rotate, Extrude, Material.
- Creating different mesh models and adding textures.

# Introduction to topic

To create 3D arena design and model using Blender 2.82a software.

- Software used Blender 2.82a
- Basic tools like Scale, Move, Rotate, Extrude, Material.
- Creating different mesh models and adding textures.
- Integrating all objects to create Arena

# Design of 2D Arena

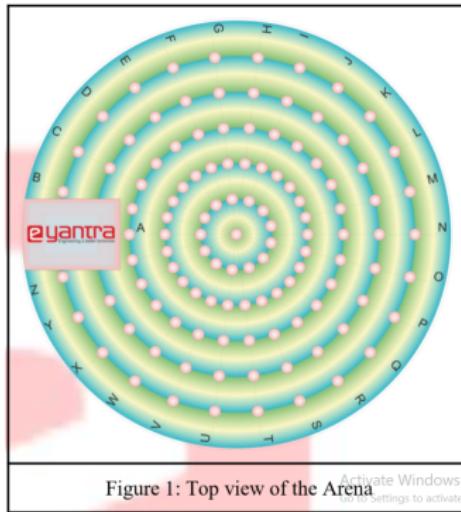
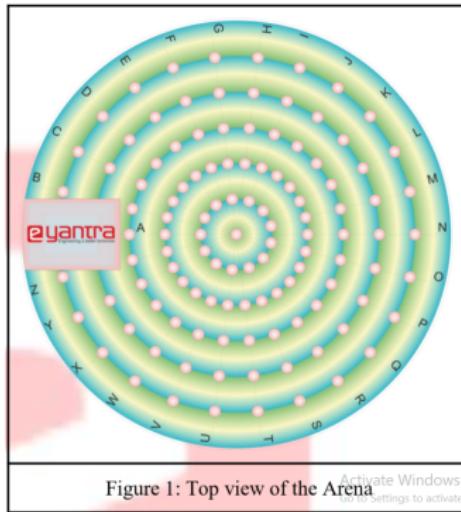


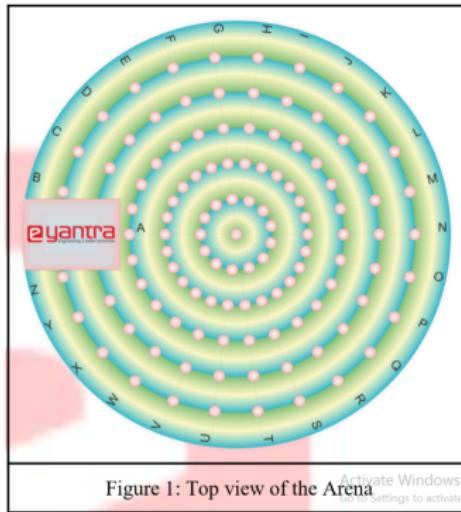
Figure 1: Top view of the Arena

# Design of 2D Arena



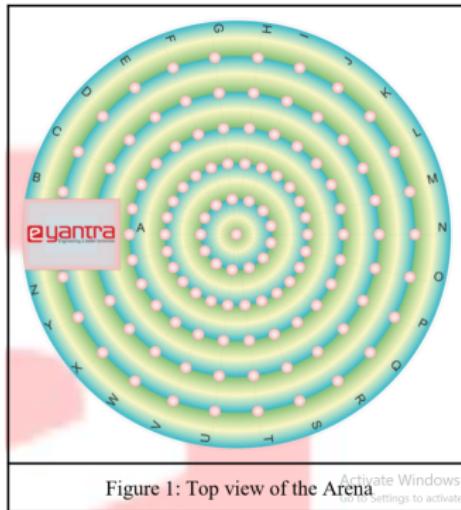
- ① **The Home Zone:** The Start and End Zone The big red shaded rectangular area with the start and end zone for the Patrol Fish.

# Design of 2D Arena



- ① **The Home Zone:** The Start and End Zone The big red shaded rectangular area with the start and end zone for the Patrol Fish.
- ② **The Nodes** The small circular red shaded circles shows Nodes at which Objects may be placed

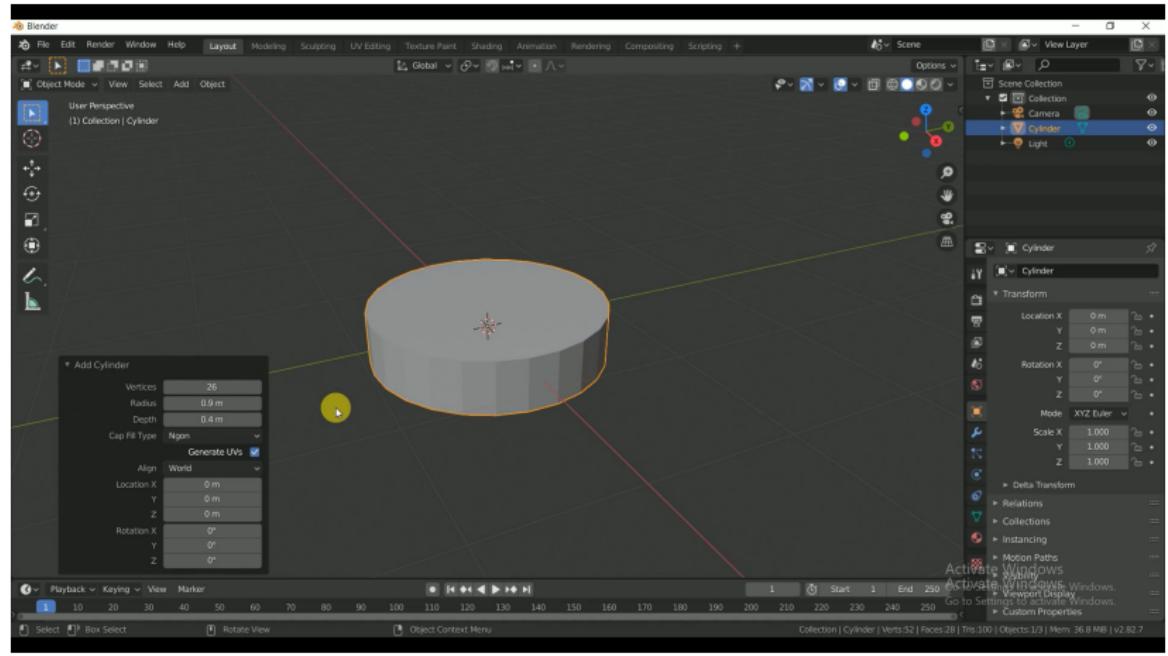
# Design of 2D Arena



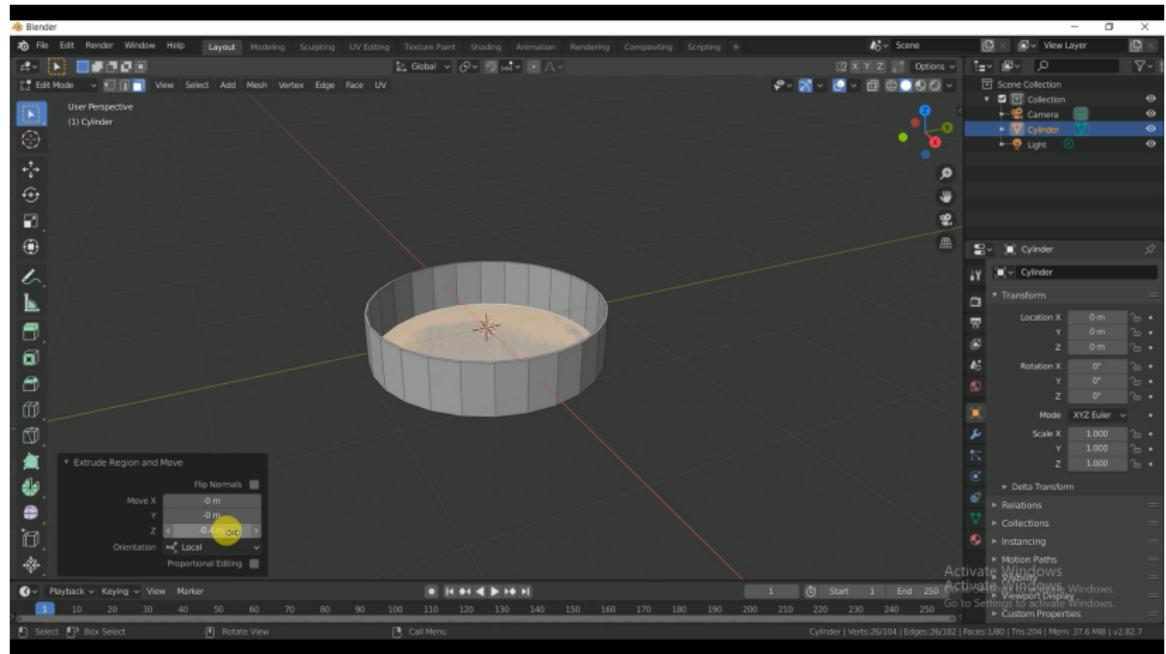
- ① **The Home Zone:** The Start and End Zone The big red shaded rectangular area with the start and end zone for the Patrol Fish.
- ② **The Nodes** The small circular red shaded circles shows Nodes at which Objects may be placed
- ③ **The sector line letter value** ranges from A to Z as labeled in the arena The ring number ranges from 1 to 5 from inside to outside. i.e. All possible nodes are: 0,A1,A2,A3,,Z5

# Steps to design 3D Arena

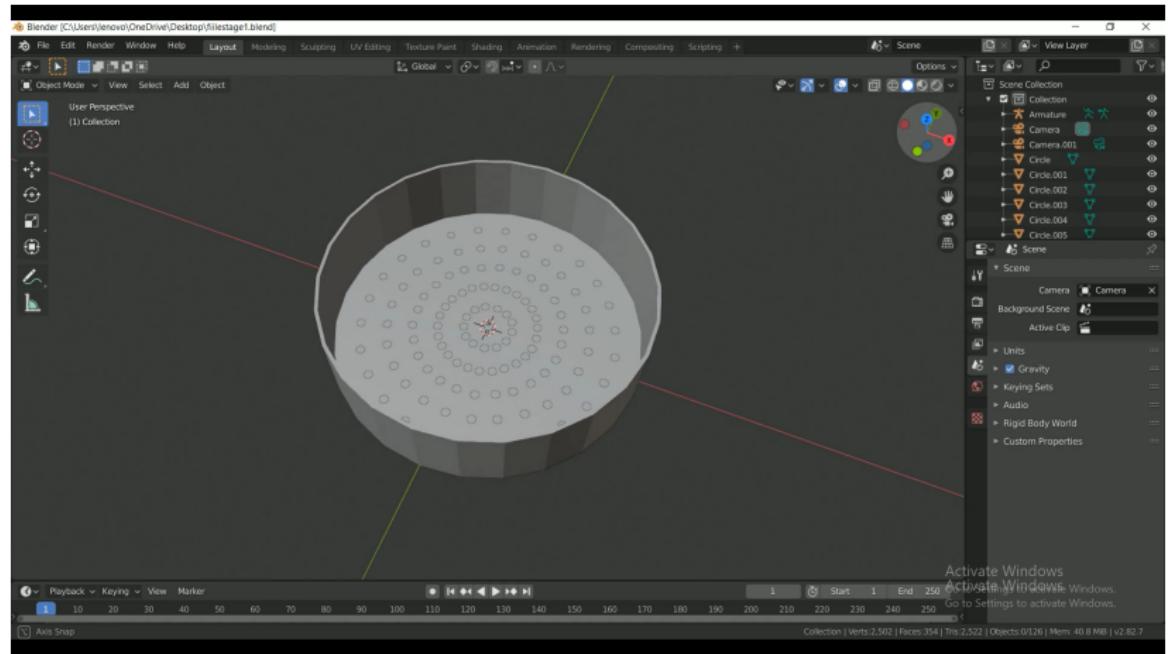
Add Cylinder using Shift+A



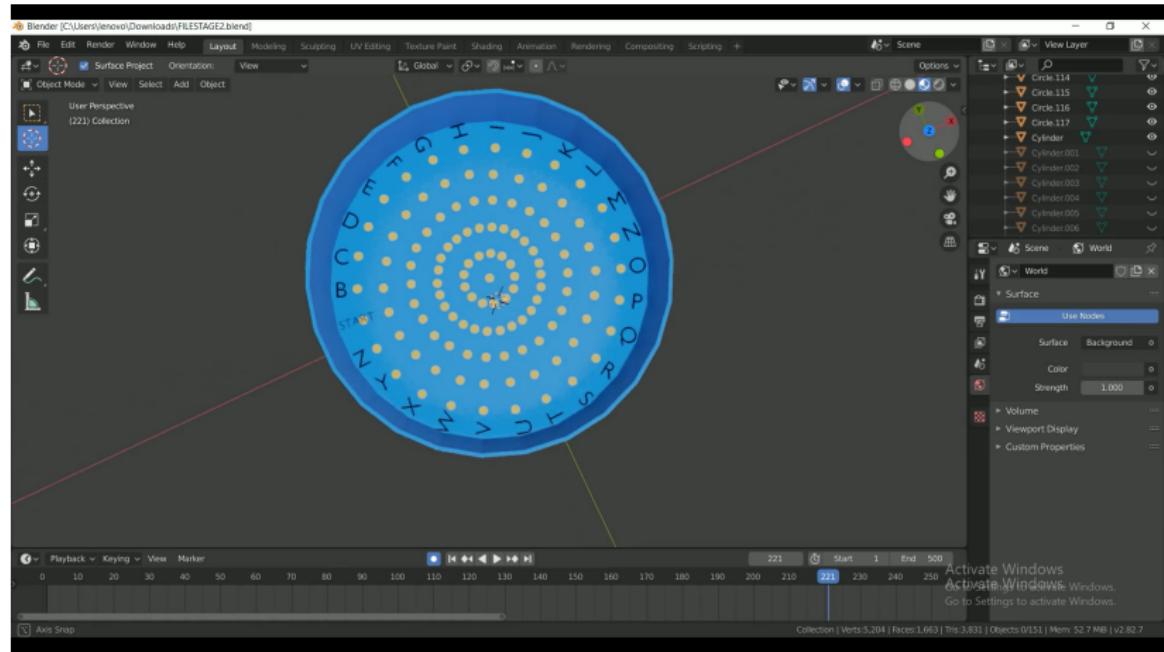
Select Face Insert another using I key and Extrude along -Z axis using E



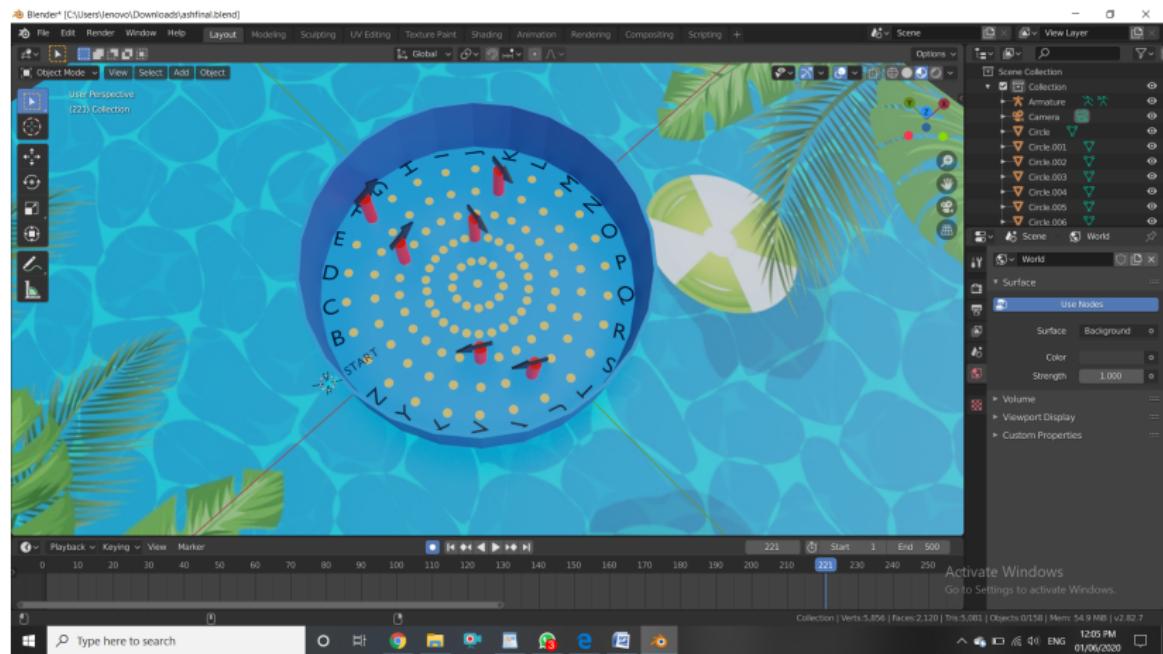
Add Circle using Shift+A and duplicate them using Shift D



Add material by changing base colour and also add the text using Shift+A



Again add cylinder as gateway and create water material by changing properties like Transmission, Roughness , etc



# Application-2

- ① Interactive 3D applications**
- ② Creating animated films**
- ③ Soft body simulation**
- ④ Motion graphics**

# Thank You!

Author name: Ashlesha Borade

Post your queries at: [resources@e-yantra.org/](mailto:resources@e-yantra.org/)