COMPUTER GRAPHICS

PROJECT PROPOSAL

BY AZERTY

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AirBoat

PROJECT IDEA
ROBOBOAT

Our main character for this project would be a 3D replica of a RoboBoat made with the *three js* library. We hope to recreate an accurate representation of this model by implementing multiple meshes to our model, combining geometry and material to give it a realistic impression.

Furthermore, we want to use *MeshPhysicalMaterial* for our object which supports advanced reflection rendering but at the cost of more computational power. We also want to have some sort of mouse control function to rotate this object so we could see it from different camera perspectives.
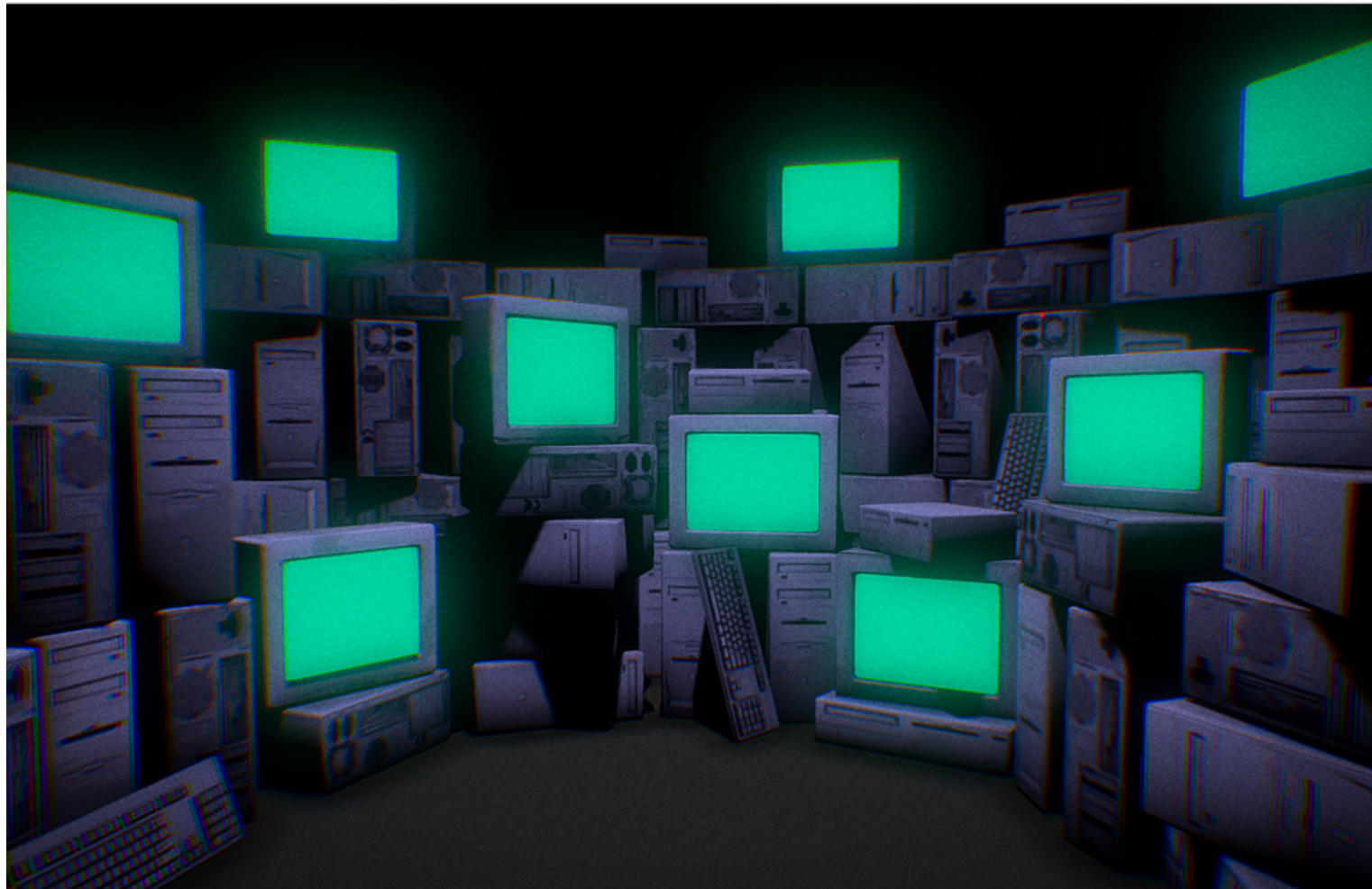
P R O J E C T   I D E A
O L D   C O M P U T E R

Our second project idea is to recreate a collection of old computers. To further improve this 3D model, we plan to implement *ShaderMaterial* on each of these computer screens so we can have our own custom shaders there by using the GLSL code to run this shader.

We can also add a mouse pointer function to zoom in when we click these shaders by using raycasting to the texture.

FEATURES

Some features that we want to implement to our project

Keyboard Interaction

We can interact with our model with a keyboard interface. For example, we can move our model along the plane by using w,*a,s,d* keys.

Mouse Interaction

We use mouse interaction with raycasting to pick up mouse movement in the 3D space that we are working on. For example, moving or zooming the camera to get different perspective of our model.

REACT-THREE-NEXT STARTER

A minimalist react starter that will automatically pick the marked R3F (react three fiber) component and inject them into a canvas layout so we can navigate seamlessly between the pages with some dynamic dom and canvas content without reloading or creating a new canvas everytime
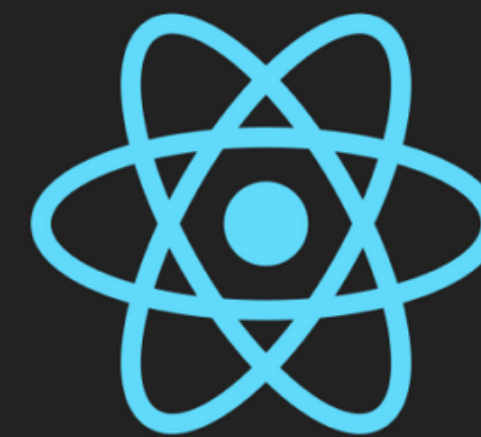
REFERENCES

threejs.org/docs

Three js full documentations to give us an idea how to work on this project.

sketchfab.com

Webpage of example 3D models ready to view for our inspirations

THANK YOU