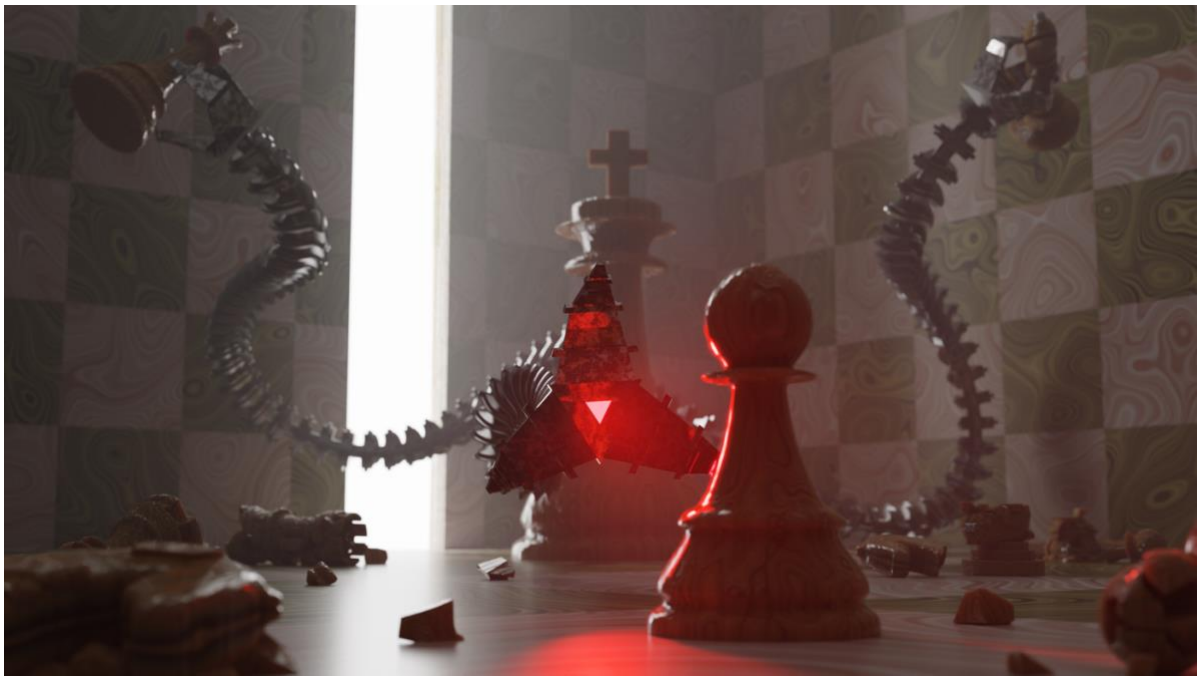
The king in a chessboard has limited power. I wanted to reimagine the king as a malevolent ruler with disproportionate power that he does not mind using on his own side.

For this final image, a king with three robotic arms, inspired by Doctor Octopus from Spiderman, is holding a bishop and a queen. The scene is captured right before he tries to grab a pawn with its open claws. The ground is a chessboard, and the chessboard-patterned walls are also closing in. Some chess pieces are fragmented, implying that they were crushed by the king.



Inspiration board

What each person in your group did:

I had no teammates

Requirements:

Main geometry

All objects and textures in this scene were modeled from scratch.

UV Mapping and texturing

- The pawn in the focus of the scene was UV unwrapped.
- A wooden texture was procedurally generated from scratch for all the chess pieces.
- The texture of the environment was also procedurally generated from scratch.

Blender Cycles features

Both volumetric fog and depth of field were used in the final render.

Models

- **Chess pieces**
  - Modeled from scratch 6 (six) types of chess pieces (King, Queen, Bishop, Rook, Knight, and Pawn), following the tutorials linked below. https://youtu.be/p4eShxxB2lU https://youtu.be/iSN_4MUQvPc
  - The base mesh for all the models was a cylinder. Scale, Extrude, Loop cuts, move command, Bevel, and Inset face were used to get to the final forms. The Boolean command was used for the bishop.
  - The fragmented chess pieces were created using the Cell fracture add-on and then scattered randomly in the scene.

- **Robotic arms**:
  - The robotic arms were modeled following this tutorial (https://youtu.be/-2HCxy4Kh4E).
  - The base mesh for the arms was a triangle. Scale, Extrude, Loop cuts, move command, Bevel, and Inset faces were used to get a single unit.
  - An array modifier was then used to make a total of 40 copies.

- The arms were then rigged using an armature which was at first scaled and then subdivided 39 times.
- Inverse kinematics was used to give it a realistic curve and motion.

- **Claw (of robotic arm):**
  - A plane was created and then merged. A skin modifier and an Array modifier were then used to get the result. The claw was also rigged.
- **The lit section in the wall**:
  - Done by placing two loop cuts and by deleting a face. The lighting was inspired by this tutorial https://youtu.be/LCXF4IXOC8Y

Image without texture

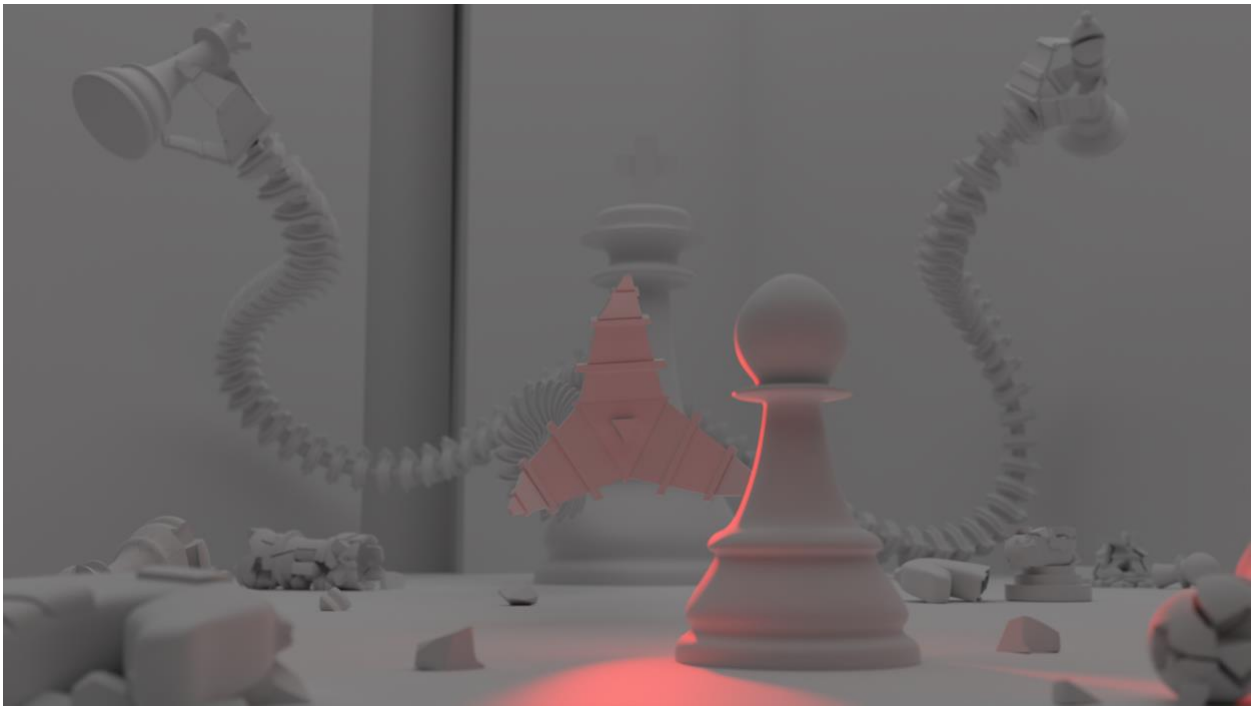


Image (actual):

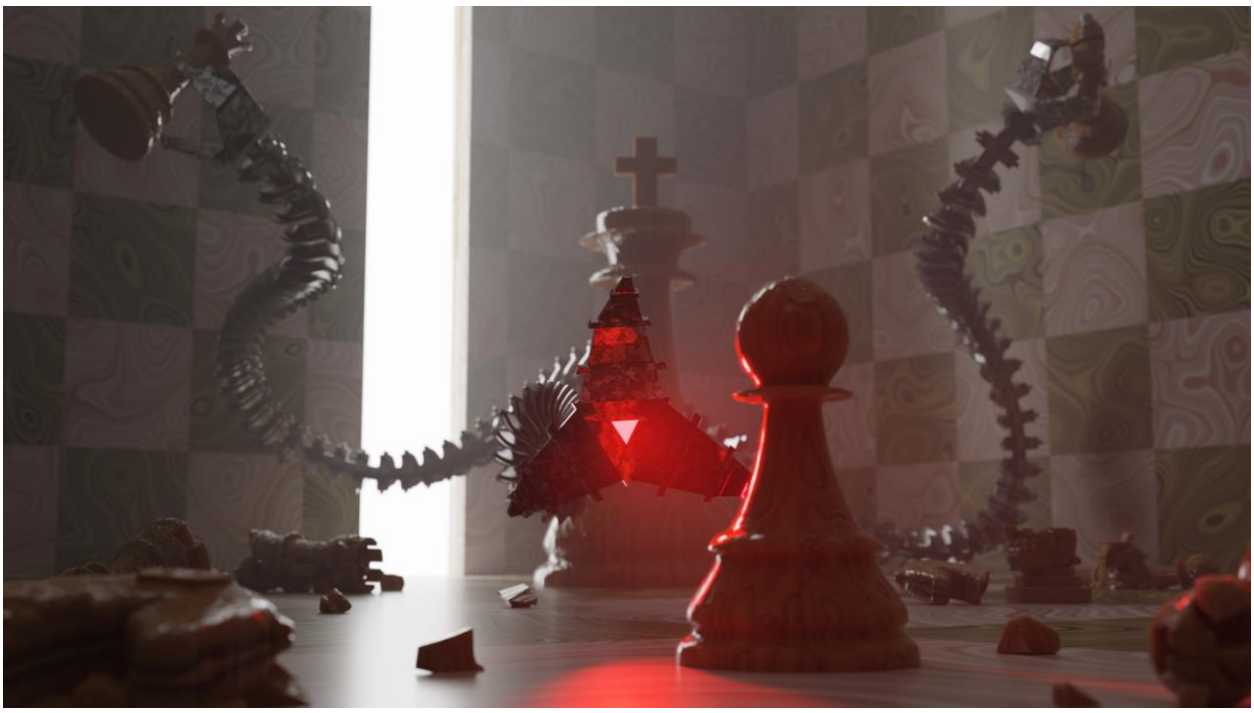
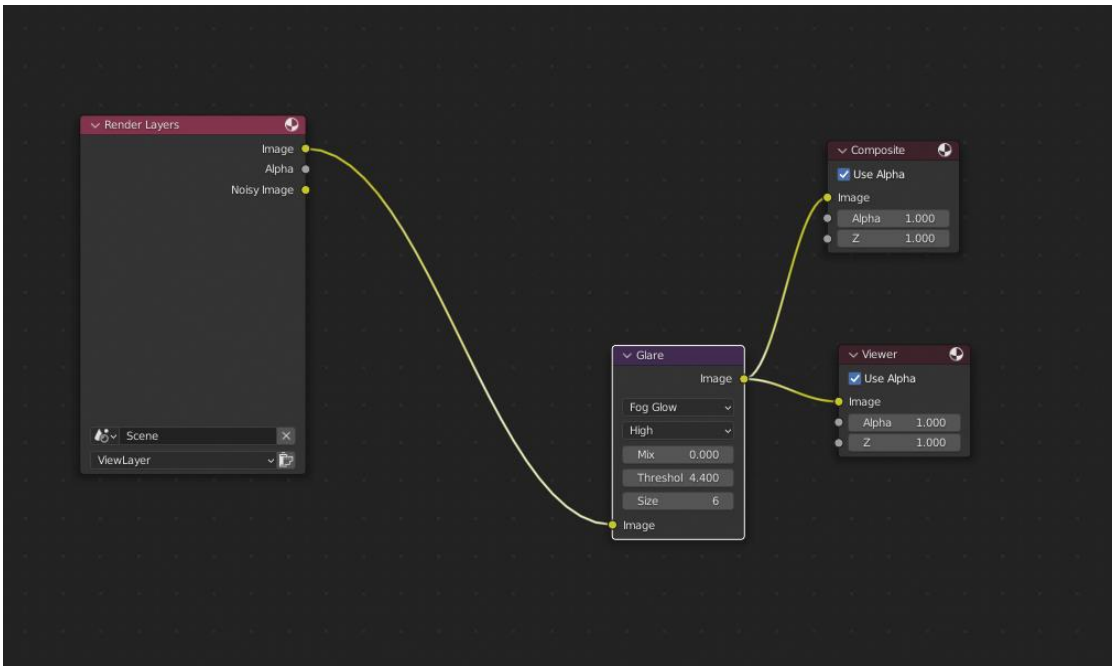


Image without top area light:

Image from a different angle

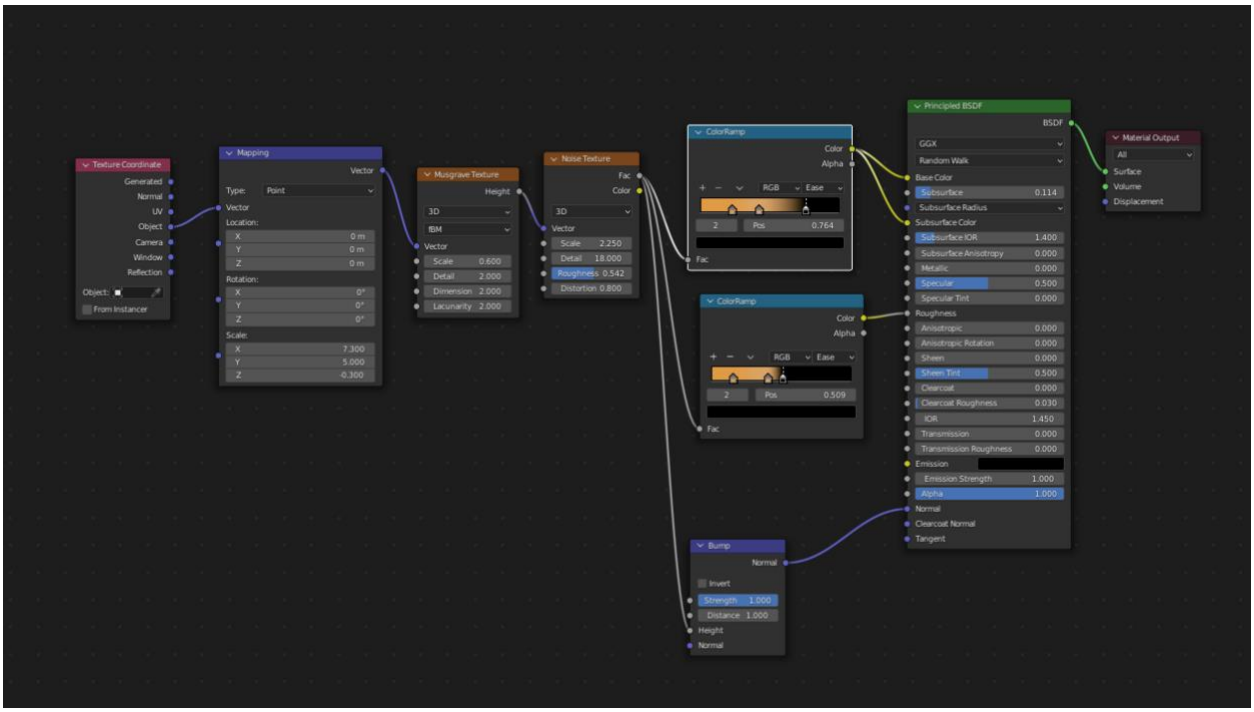
Lighting and shadow:

For the lighting, a plane with an emission shader was used as the main light source. For fill light, an area light was put at the top of the environment. Furthermore, compositing was utilized to enhance the lighting of the scene. A simple glare node was used in compositing for enhanced brightness.

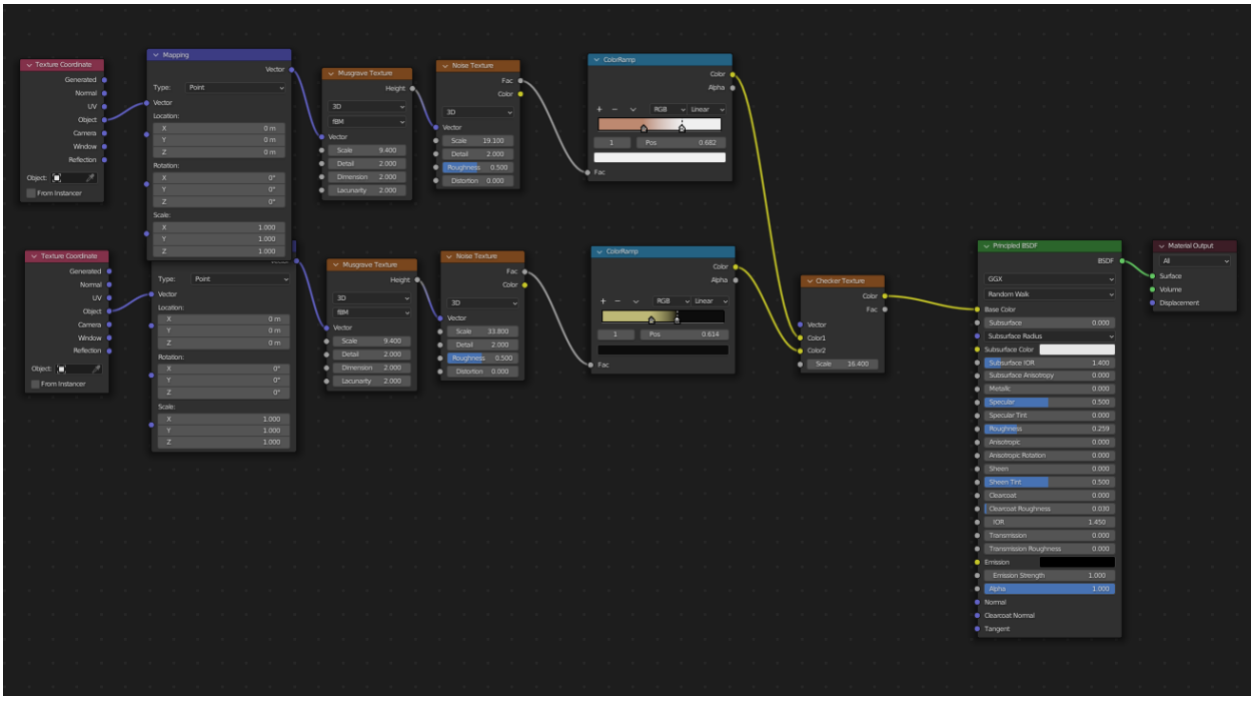


Materials:

The wood material was made following this tutorial https://youtu.be/Egd_BNAT3l8

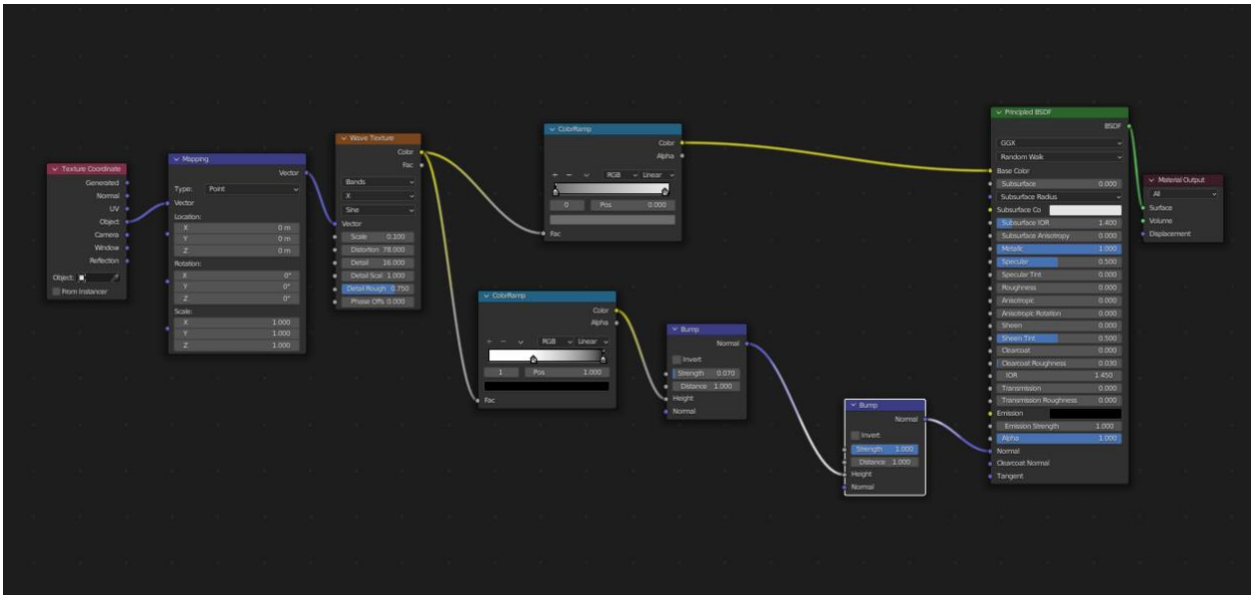


The checkered board material was made using the checker texture and mixing it with the wood texture pattern node setup:



The robotic arms were assigned a rusty texture following this tutorial:

https://www.youtube.com/watch?v=qMCuDjXjsZ0



The settings for Cell fracture are given below: