Stack O Bot Project – Spring 2026

Video Game Design Club – Unreal Engine Beginner Project

Project Overview

Stack O Bot is a small Unreal Engine demo project designed to help students learn how a real 3D game is built. The demo includes a working robot character, animations, movement, and several pre-built environment pieces.

Our goal for this project is to take the existing demo and **transform it into a simple 3D top-down game**, while learning Unreal Engine's core tools step by step. Students will follow along with guided tutorials and then customize the world using their own ideas.

Project Goals (Simple, Beginner-Friendly)

By the end of this project, students will aim to complete:

- A **top-down playable level** using the Stack O Bot robot.
- Terrain, props, and objects arranged into a small world.
- Basic **collectable items** or simple objectives.
- At least 1–2 custom assets:
    - A small 3D model made in Blender *or*
    - A hand-drawn or pixel texture made in Photoshop or Aseprite.
- Simple sound effects or background music (optional).
- A short gameplay test during our club's **Game Jam event**.

This project is meant to be **easy, guided, and low-pressure**—not a full game.

How We Will Build It (Flexible Roles)

Students can choose what parts they want to focus on. They can do *all* of these or just pick one:

Level Design

- Arrange rocks, platforms, walls, and props
- Create a small top-down exploration area

Game Mechanics

- Switch the camera to top-down
- Add simple items to collect
- Add basic interactions or goals

Art & Assets

- Make simple 3D models in Blender (like crates, signs, small robots)
- Create textures in Photoshop or Aseprite and import them

Audio

- Add footstep sounds
- Add a simple background music track

(Optional) Story or Environment Theme

- Give the level a theme—factory, forest, sci-fi lab, etc.
- Add signs, notes, or small details to make the place feel alive

This project will be guided with step-by-step help. Students will not be left to figure things out on their own.

Software & Tools

- **Unreal Engine 5** — Building the game and editing the level
- **Blender** — (Optional) Creating simple 3D props
- **Photoshop or Aseprite** — (Optional) Drawing textures or icons

- **ChatGPT** — Quick help, problem-solving, or design ideas

Conclusion

The **Stack O Bot Project** is a gentle introduction to Unreal Engine game development. Students will learn by doing, following tutorials, and adding their own creativity. The final result will be a small, polished, top-down scene they can proudly share at our Game Jam.

This is a safe, low-stress project—perfect for experimenting and discovering what part of game development they enjoy most. Let's build something fun together! 🤖✨