

# Quest Engine

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Webpage with screenshots and video: [quest-graphics.github.io](http://quest-graphics.github.io)

Code: [github.com/Quest-Graphics/Quest-Engine](https://github.com/Quest-Graphics/Quest-Engine)

## What works

- Complex 3D environment with imported models
  - All models are original
- 3D transformations and camera movement
  - Transformations are handled by the Entity class, which uses the Model class
  - Camera movement is synchronized with the player movement and is handled by the Camera class
- User interactivity
  - Game engine handles input event routing to game objects
- A playable game
  - Controls are WASD for player movement and ↑↓ for camera zoom
  - Walk around, collect coins, score increments
- Multiple lights
- Textures (see sources below)

## Extra credit

- Background music
  - DOOM 2016 theme from  
<https://www.youtube.com/watch?v=MunWSqTgQLs>

## Texture sources

- Stage texture:  
<https://freestocktextures.com/texture/black-wooden-planks,1387.html>
- Coin texture:  
<https://freestocktextures.com/texture/glitter-gold-background,1352.html>
- Lava texture:  
[https://images-ext-1.discordapp.net/external/TRsW7BhqhRW3UAEfXJsi7AuZC3G\\_v-5T9MXhoyonabs/https://i.pinimg.com/originals/77/59/26/7759268baebef8d8b258b96682fd2766.jpg](https://images-ext-1.discordapp.net/external/TRsW7BhqhRW3UAEfXJsi7AuZC3G_v-5T9MXhoyonabs/https://i.pinimg.com/originals/77/59/26/7759268baebef8d8b258b96682fd2766.jpg)
- Eye of Sauron texture:  
[https://images-wixmp-ed30a86b8c4ca887773594c2.wixmp.com/f/8f4523ca-011e-47c2-bab5-412d4885b777/d9f0t6k-7ef4fc3d-8806-408c-8888-3f517391bc90.png?token=eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWliOiJ1cm46YXBwOjdlMGQxODg5ODIyNjQzNzNhNWYwZDQxNWVhMGQyNmUwIiwiaXNzIjoidXJuOmFwcDo3ZTBkMTg4OTgyMjY0MzczYTVMMGQ0MTVIYTbkMjZlMCImlm9iail6W1t7InBhdGgiOiJcL2ZcLzhmNDUyM2NhLTAxMWUtNDdjMi1iYWl1LTQxMmQ0ODg1Yjc3N1wvZDlmMHQ2ay03ZWY0ZmMzZC04ODAzLTQwOGMtODg4OC0zZjUxNzM5MWJjOTAwcG5nIn1dXSwiYXVkljpbInVybipzZXJ2aWNlOmZpbGUuZG93bmxvYWQiXX0.kvDZtzB\\_-IjRHdYiZdZO9fmw-Fxu6Y6qj88idP2ec68](https://images-wixmp-ed30a86b8c4ca887773594c2.wixmp.com/f/8f4523ca-011e-47c2-bab5-412d4885b777/d9f0t6k-7ef4fc3d-8806-408c-8888-3f517391bc90.png?token=eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWliOiJ1cm46YXBwOjdlMGQxODg5ODIyNjQzNzNhNWYwZDQxNWVhMGQyNmUwIiwiaXNzIjoidXJuOmFwcDo3ZTBkMTg4OTgyMjY0MzczYTVMMGQ0MTVIYTbkMjZlMCImlm9iail6W1t7InBhdGgiOiJcL2ZcLzhmNDUyM2NhLTAxMWUtNDdjMi1iYWl1LTQxMmQ0ODg1Yjc3N1wvZDlmMHQ2ay03ZWY0ZmMzZC04ODAzLTQwOGMtODg4OC0zZjUxNzM5MWJjOTAwcG5nIn1dXSwiYXVkljpbInVybipzZXJ2aWNlOmZpbGUuZG93bmxvYWQiXX0.kvDZtzB_-IjRHdYiZdZO9fmw-Fxu6Y6qj88idP2ec68)