

SNOOKER GAME-UNITY 3D ENGINE



Table of Content:

- I. Game Overview
- II. Gameplay
- III. Mechanics
- IV. Story, Setting and Characters
- V. Levels
- VI. Interface
- VII. Technical
- VIII. Game Art

Game Overview:

Genre: Sports simulation.

Perspective: First Person view.

Target Audience: Age group 15-30, youngsters who seek entertainment and fun.

Game Concept:

The game concept of a snooker game is to accurately simulate the game of snooker, a popular cue sport played on a rectangular table with six pockets, using a cue stick and 21 colored balls.

Players take turns striking the white cue ball with their cue stick, attempting to pot (pocket) one or more of the colored balls in the pockets of the table. Points are earned based on the color of the ball potted, with red balls worth one point and colored balls worth varying amounts of points.

The game ends when all balls have been potted, and the player with the most points at the end of the game wins. In addition to simulating the basic gameplay mechanics of snooker, snooker games often include various features such as different game modes, customization options, and online multiplayer capabilities to enhance the overall gaming experience.

Game Flow:

The game flow of a snooker game generally follows these basic steps:

- Players choose their preferred game mode and options. This may include selecting a single-player or multiplayer mode, choosing a difficulty level, and adjusting various game settings.
- The game begins with the player who won the opening coin toss taking the first shot. They aim and strike the white cue ball with their cue stick, attempting to pot one of the red balls in the pockets.
- If the player successfully pots a red ball, they earn one point and continue their turn, attempting to pot one of the colored balls. If they miss, their turn ends and their opponent takes over.
- If the player successfully pots a colored ball, they earn additional points based on the color of the ball. The balls are then replaced on the table and play continues until all red and colored balls have been potted.
- Once all balls have been potted, the player with the most points wins the game.
- In multiplayer mode, players take turns until a predetermined number of games or frames have been played, with the player winning the most games being declared the overall winner.
- Snooker games may include additional features such as power-ups, bonus rounds, and special challenges to add variety and complexity to the gameplay.

Overall, the game flow of a snooker game is focused on accurately simulating the mechanics and rules of the real-life snooker sport, while providing players with various options and features to enhance their gameplay experience.

Game Mission:

The game mission of a snooker game is to accurately simulate the game of snooker while providing players with an engaging and enjoyable gameplay experience. The primary objective of the game is to pot as many balls as possible while following the rules and regulations of the sport.

In addition to the basic gameplay mechanics, many snooker games include a variety of additional objectives and challenges to keep players engaged and motivated. These may include achieving specific scores, completing trick shots or challenges, progressing through a career mode, or competing against other players in online multiplayer mode.

Ultimately, the mission of a snooker game is to provide players with an immersive and challenging gameplay experience that accurately captures the excitement and strategy of the real-life snooker sport. Whether playing against the computer or against other players online, the goal is to hone your skills and become a master of the cue.

Game Challenges:

The game challenges of a snooker game can vary depending on the specific game and its features. However, here are some common challenges that players may encounter:

1. **Shot accuracy:** Players must aim their cue stick precisely to hit the balls in the right spot and pot them into the pockets. This requires good hand-eye coordination and a keen sense of depth perception.
2. **Shot power and spin:** Players must also carefully control the amount of power and spin applied to each shot. This can affect the trajectory of the ball and determine whether it will end up where the player wants it to.
3. **Strategy and decision-making:** Players must make strategic decisions about which balls to pot and which to leave on the table. They must also consider the position of the cue ball and plan their next shots accordingly.
4. **Time pressure:** In some game modes, players may face time limits for their turns or have to complete certain objectives within a specific time frame. This can add an extra layer of challenge and require players to make quick decisions under pressure.
5. **Trick shots and challenges:** Some snooker games may include special challenges or trick shots that require players to perform complex or unconventional maneuvers. These can be difficult to execute but offer a satisfying reward when completed successfully.

Overall, the challenges in a snooker game are designed to test players' skills and keep the gameplay engaging and exciting. With practice and perseverance, players can improve their abilities and overcome these challenges to become a skilled snooker player.

Mechanics

The mechanics of a snooker game are focused on accurately simulating the gameplay and rules of the real-life snooker sport. Here are some of the key mechanics that are typically included in a snooker game:

Cue stick controls: Players use the mouse or joystick to control the direction, power, and spin of the cue stick as they strike the white cue ball.

Ball physics: Snooker games use realistic ball physics to simulate the way that balls interact with each other and the table. This includes factors like friction, collision, and momentum.

Shot aiming: Players must aim their shots carefully using a cue ball aiming line or other visual cues to ensure that they hit the target ball in the right spot.

Game rules: Snooker games adhere to the official rules of the sport, including the order of play, the point values of each ball, and the requirements for fouls and penalty points.

Shot selection: Players must decide which balls to target and when to play defensively to prevent their opponent from scoring points.

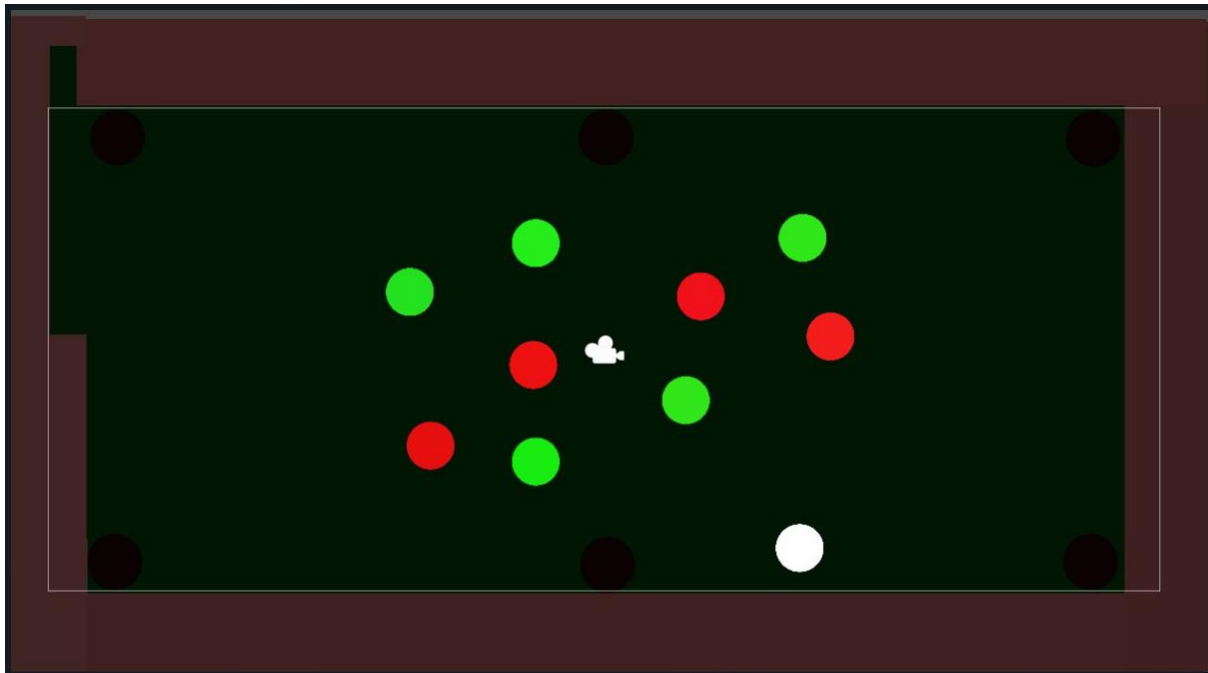
Camera angles: Snooker games typically use top-down or overhead camera angles to give players a clear view of the entire table and all of the balls in play.

Multiplayer functionality: Many snooker games include online multiplayer modes that allow players to compete against each other in real-time, either locally or across the internet.

Game Objects:

- 1) **Cue stick:** The cue stick is the main tool used by players to strike the white cue ball and aim at other balls on the table.
- 2) **Balls:** A full set of snooker balls consists of 22 balls, including 15 red balls, 6 colored balls, and the white cue ball. The balls are placed on the table in a specific formation according to the rules of the sport.
- 3) **Table:** The snooker table is the playing surface on which the balls are positioned and the game is played. The table is typically covered in a green felt cloth and has six pockets for the balls to be potted.
- 4) **Scoreboard:** The scoreboard displays the score of each player during a match, as well as other important information such as the number of fouls and the highest break achieved.
- 5) **Shot clock:** In some game modes, a shot clock may be used to limit the amount of time that a player has to take their shot.
- 6) **Rules and regulations:** Snooker games adhere to the official rules and regulations of the sport, including the order of play, the point values of each ball, and the requirements for fouls and penalty points.
- 7) **Multiplayer lobby:** If the game includes a multiplayer mode, a multiplayer lobby object is used to create or join games with other players online.

Screen Flow:



Story:

Snooker games do not typically have a narrative or story, as they are designed to simulate the gameplay of the real-life sport. However, some snooker games may include a single-player career mode or campaign that follows the journey of a fictional player as they work their way up through the ranks of the professional snooker world.

In these types of game modes, the player may create their own custom character or select from a roster of existing players, and then compete in various tournaments and matches to earn money, gain experience, and improve their skills. Along the way, they may encounter rival players, form alliances with sponsors or other players, and face a variety of challenges that test their abilities on the table.

Although there is no overarching narrative in a snooker game, the single-player career mode can provide a sense of progression and achievement for players as they work towards becoming the best snooker player in the world. The focus is on mastering the mechanics and strategies of the game and using them to overcome opponents and achieve success on the professional circuit.

Single-player exhibition matches: In this mode, the player can choose to play a single match against the computer or a friend. This is a good way to practice and improve your snooker skills, without the pressure of a tournament or career mode.

Level Descriptions:

Career mode: This mode allows the player to create their own custom character or select an existing player, and then work their way up through the ranks of the professional snooker world. The player will compete in various tournaments and matches to earn money, gain experience, and improve their skills.

Online multiplayer: In this mode, players can compete against each other online in real-time matches. This mode may include various matchmaking options, such as quick play or ranked matches, as well as a lobby system for creating or joining games with other players.

Trick shot challenges: This mode allows players to practice and show off their trick shot skills, with various challenges and scenarios to complete. This can include creative shot-making and impressive combinations.

Time trials: This mode challenges players to complete a set number of shots or clear the table as quickly as possible, with a time limit to add an extra level of pressure.

Interface:

The interface of a snooker game typically includes the following elements:

Game Board: This is the main area where the game is played. It shows the green baize table with six pockets and colored balls placed at their designated positions

Scoreboard: The scoreboard displays the score of each player, the number of points remaining on the table, and the number of consecutive pots made by a player.

Cue Stick: The cue stick is used to aim and strike the cue ball. In the game interface, it is typically controlled by the mouse or keyboard.

Power Bar: The power bar allows the player to adjust the strength of the shot. It typically appears on the screen as a bar that fills up and empties out as the player adjusts the power

Aim Indicator: The aim indicator helps the player to aim the shot. It shows the path of the cue ball and the direction it will take after hitting another ball.

Camera Views: The game may offer different camera views to allow the player to see the table from different angles.

Menu Options: The game may offer various menu options for the player to choose from, such as changing game settings, starting a new game, or quitting the game.

Sound Effects: The game may include sound effects such as the sound of balls hitting each other, applause, or background music.

Tutorial: Some games may include a tutorial mode that helps the player to learn the rules and techniques of the game.

Technical:

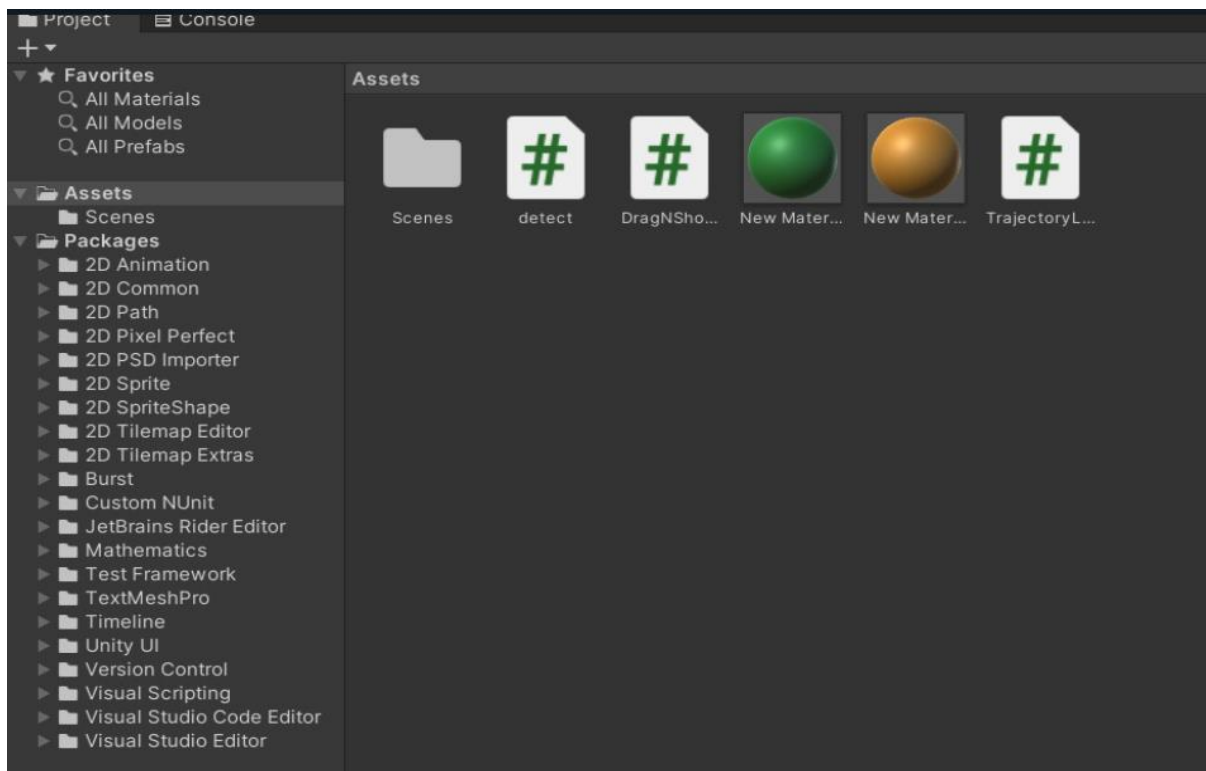
Platform: PC, Unity 3D Engine

Version: 2021.3.1811

Development hardware and software:



Assets and Designs:



Game Art:

Game art in a snooker game can refer to several visual elements such as:

Game Board: The game board or the snooker table itself is the centerpiece of the game art. It is typically green and has six pockets. The table is marked with lines and numbers to indicate the position of the balls.

Balls: The snooker game has 21 balls, 15 red and six colored ones. Each ball has a specific color and number, and they are arranged in a particular formation at the beginning of each game. The balls' textures and materials, such as the glossy finish on the red balls and the matte finish on the white cue ball, can also be considered as part of the game art.

Lighting: The lighting in the game can significantly impact the game art. The snooker table is typically illuminated by overhead lights that create shadows and highlights on the table and balls.

Player Characters: The player characters, typically shown as a hand holding a cue stick, are also part of the game art. The character's animation and appearance, such as their attire and accessories, can enhance the overall game art.

Background: The game's background can set the tone and atmosphere for the game. A snooker game's background can be a realistic representation of a snooker club, complete with spectators, or a more minimalist approach with a plain colored background.

Menu Art: The menu art can also contribute to the overall aesthetic of the game. The menu screens can feature images of snooker balls, cues, or even players in action.