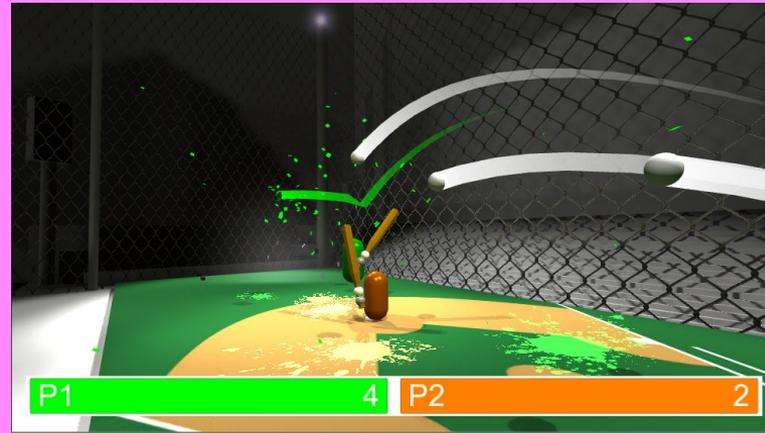


Super Action Sports!

Gameplay Design



Communicating status of game

Super Action Sports! is designed so that players can know how the game is going in multiple ways. Colored balls or equipment indicate which player is doing a relevant action (hitting a baseball, throwing a sword, etc) and this information is reflected in the in-game GUI bar at the bottom of the screen. Additionally, paint splatters cover the floor when players are struck down and show which players have been hit frequently. Without looking at the GUI, it's possible to see which player has been doing worse.



The story of Super Action Sports!

Aliens have taken over a human colony on Mars. But they're bros about it, so it's cool. They even like sports! Once a year, the humans use capsule-based alien technology to protect themselves while engaging in alien sports. Because the aliens only have vague ideas of how actual human sports work, the sports the humans play are a little different than the sports you are probably used to!



1-4 Player/Simultaneous*

**Super Action Sports!* does not yet support Nintendo 64 Controllers

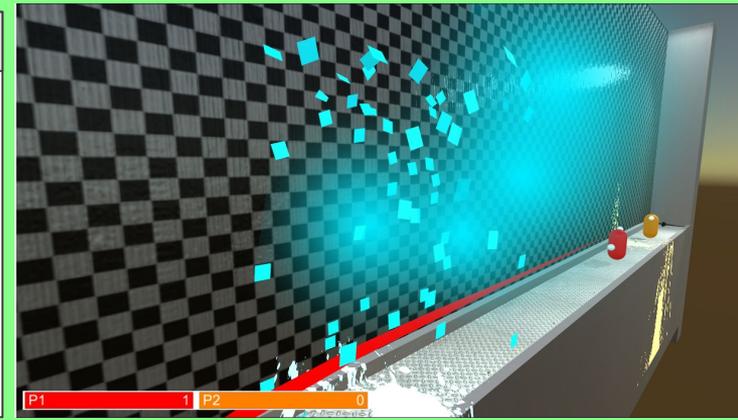


Intense 5 mini-game action!

Five exciting mini-games to choose from: Action Sticks! (fencing), Action Fuzzy Egg! (racquetball), Action Tiny Egg! (golf), Action Stick Egg! (baseball), and Hockey (hockey!). Each of them with rules that are hyper-simplified and significantly more violent than their Earth-based inspirations

What's a goal?

Because the rules for determining points has been lost for hundreds of years, scoring is now based on performance in the game, adherence to the rules, violence, and the fickle nature of the audience. The best players read the audience and react to their wants to win.



Super Action Sports!

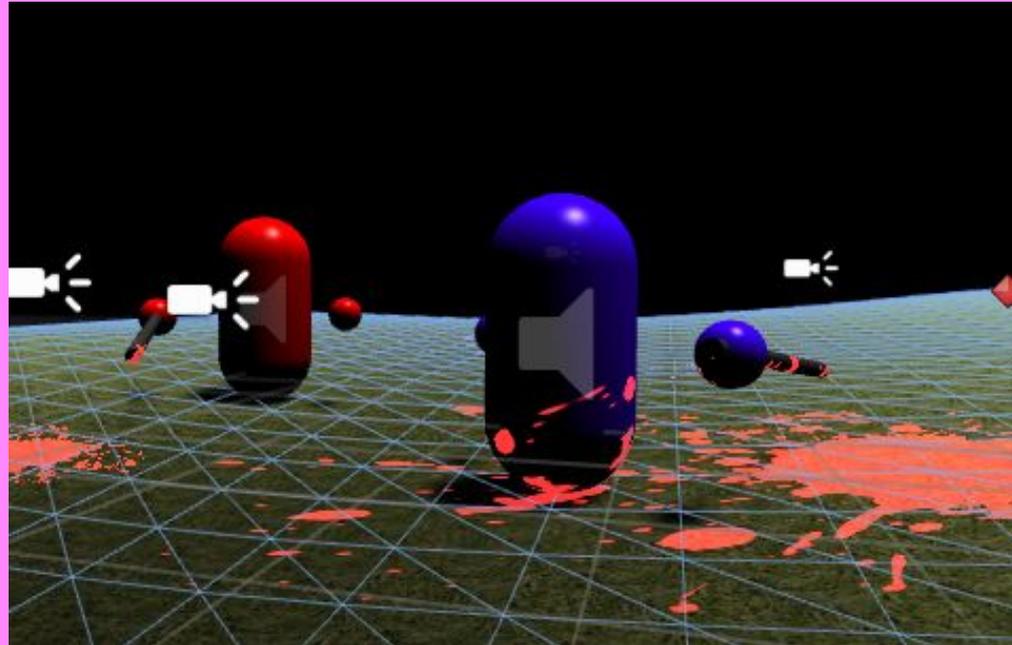
Technical Design

Projectors and Shaders

Projectors are used to create the paint splatters seen whenever a player is attacked. Projectors allow a large number of paint splatters to exist on screen without causing slowdown, as they simply “project” an image and have no other data baggage to keep track of. They are also ideal for allowing the paint to “splatter” across any kind of surface, from the uneven hills of the golf mini-game to the harsh angles of the pitching machine in the baseball minigame . Because projectors modify the material of any object inside their view, they have to use a special kind of shader to “project” an image onto one spot instead of just wrapping that object in the image. As the standard projector only allows for black-and-white “shadows” to be projected, the game uses a customized version of this shader that can accept a color value in order to paint the various mini-games with the color of the losing player. A custom shader that tints an object based on its height position was also created for the procedurally generated hills in the golf mini-game. This shader determines the lowest and highest points of the ground object and uses these points to shade the terrain with a gradient from black to white. This really helped to highlight the elevation of each point in the terrain, allowing a player to tell the difference between the peaks and valleys of the hills when looking at them from the top-down camera view used in the game.

Perlin Noise

The hills in the golf mini-game are procedurally generated each time the game is played to help give it some replayability. This is done using a perlin noise algorithm that returns a pseudo-random pattern of float values between 0.0 and 1.0 across a 2D plane. The values are then scaled for use as height values for the ground, ensuring a new configuration of subtle, rolling hills each time the golf mini-game is launched.



Team Dumpsles



Super Action Sports!

Technical Design

The Liaison Class (“Layla”)

The liaison class is the glue that hold the entire game together. Layla utilizes persistence in the form of a singleton design to become the global game class allowing it to be the communication link between everything in the game. Layla takes all the information that the users set in the main menu and sends it to the individualized game wizards classes and the player class. Layla is vital to the game’s functionality, it solves the problem that Unity and InControl have maintaining the bond between the user’s controller and their respective in-game character.

Game “Wizards”

The game wizard classes are the puppet masters for the individual games. They control how the game runs based on the information passed to it from the liaison class. The wizards then apply the proper prefabs, respawn points, and other game settings. They link the game specific player controllers and stat cards to the player class.

