

## ❖ Wizard Soccer Manual Tests

### ❖ Scoreboard Testing:

- In order to separate the scoreboard function to work on it and fix problems with it not working in the original project, the scoreboard code and assets were separated into a smaller subproject. This allowed the scoreboard to be tested on input other than what the game would provide, (i.e. the scoreboard code is called and updated upon the ball entering one of the scoreboards)

### ● Build and Launch Game:

- Build the project and locate the resulting .exe file
- Run the game in the Unity and create an online match
- Run the .exe and join said online match (Good to do in this order so that host-specific console messages are viewable in Unity console)

### ● Test menu UI:

- Build project and launch executable
- Click multiplayer - click main menu
  - Confirm you are returned to main menu
- Click multiplayer - click online - click back
  - Confirm you are taken to multiplayer screen, then online screen, the back to multiplayer screen
- With no LAN match hosted click join LAN, then click “stop game”
  - Confirm “stop game” button appeared without the game launching
- Click online - Click join match
  - Confirm no game is launched
- Click host match - then click “stop game”
  - Confirm that you are still able to launch games
  - Confirm that you are returned to main menu
- Press credits - Then click in a random location on the screen
  - Confirm that you are returned to main menu

### ❖ Player Join

- Build and Launch Game
- Confirm the following for each instance of the game (in the editor or through the build file)
  - There are two players in the game
  - The wall and goal posts behind the local player are invisible
  - The wall and goal posts behind the other player is visible
  - The local player goal is translucent and one static color
  - The other player goal is opaque and is playing a “portal” animation

### ❖ Stop Game

- Build and Launch Game
- Stop game on client

- Confirm that “Stop game” UI button disappears when returning to menu
  - Stop game on host
    - Confirm that “Stop game” UI button disappears when returning to menu
  - Hit join game button on previous client
    - Confirm that the game that was just ended does not appear in match list
  - Hit Host game on previous client
  - Hit join game button on previous host
    - Confirm that the game that was just ended does not appear in match list
  - Join Game - Confirming that the game does actually connect
- ❖ Game Over Screen
  - Build and Launch Game, then launch the game a second time
  - In one instance, navigate to online multiplayer and host game
  - In other instance, navigate to online multiplayer and join game
  - On host instance, win game with tornado-next-to-ball-spawn method, so that the ball is repeatedly sent to the goal without any intervention
    - Confirm that scoreboard ticks up in sync on both instances
    - Confirm that scoreboard is accurate on both instances
    - Confirm that when score hits 3, both players are shown game over screen
    - Confirm that score does not change if ball enters goal after game over
    - Confirm that both instances are unable to interact with UI elements other than stop game
  - On Client- click stop game, navigate to online play, add a nickname to nickname field, and hit host game (*Nickname is important because unity servers will not register the previous host stopping match immediately, w/o nickname we cannot differentiate between new game and old*)
    - Confirm that games stops gracefully and user is returned to main menu
  - On host- click stop game, navigate to online play, enter previous name into nickname field, hit join game, then chose game from match list.
  - On client instance (previous host), win game with tornado-next-to-ball-spawn method, so that the ball is repeatedly sent to the goal without any intervention
    - Confirm that scoreboard ticks up in sync on both instances
    - Confirm that scoreboard is accurate on both instances
    - Confirm that when score hits 3, both players are shown game over screen
    - Confirm that score does not change if ball enters goal after game over
    - Confirm that both instances are unable to interact with UI elements other than stop game
- ❖ Spell Buttons - Proper Spell mapping
  - Build and Launch Game
  - Press each button to confirm that they are mapped to the correct spell
  - Confirm that the spells are visible on both instances of the game
  - Before aiming user should be prompted to trace a pattern on screen. The pattern needs to be traced from brighter diamond to less bright diamond.

- Upon moving the cursor over the gems, the coloration should turn brighter to show that user has correctly selected the gem.
  - Spells should be only cast after both players have selected their spell
  - The accuracy of the spellcast should roughly resemble the accuracy score the user get while tracing the link.
- ❖ Fireball Spell :- Fireball spell is the main spell for manipulating the position of the ball. Upon casting fireball spell a projectile with a predetermined mass and velocity is launched. And the ball moves based on the collision with this projectile.
- Build and Launch Game
  - Press fireball spell icon and aim at the ball, the ball should have an inelastic collision with the fireball and fireball should disappear with an explosion
  - Upon firing fireball spell at a player there should not be any change in the position of the player
  - Fireball spell should be available every turn
  - Two fireballs when they collide with each other should explode and disappear. To recreate this scenario aim with 100% accuracy at the other player's staff, the projectiles should collide mid air.
  - Fireball should be able to stop other projectiles by mid air collision. If both the players cast towards each others staffs, then fireball should be able to collide with the other projectile and destroy each other. This behaviour is common to all projectiles.
- ❖ Wind Spell:- Wind spell creates a powerful tornado that pushes the ball away. This is one of the more powerful spells in the game and could win you the game with a well placed one or loose the game with a badly placed one.
- Build and launch game
  - Press second spell in the spell Hud. Trace the link and then aim the spell at the position where the tornado need to be created
  - Wind spell should create a tornado that lasts for 3 turns. During these 3 turns it should apply a constant force on the ball
  - Wind spell should only be available for casting once in four turns
- ❖ Wall Spell : This spell is the primary defense against hex and curse spells and also serves as the only way to block the ball apart from your character. Please be warned your spells will collide with the wall created by you.
- Build and launch a game'
  - Complete the trace
  - Drag the cursor to create a wall on the field.
  - Only the latest 10 points will be used to create the wall
  - The wall should block all projectiles from all spells that create a projectile
  - Can only be cast once in four turns
  - Your fireball, hex projectile and curse projectile should be blocked by the wall created by you

- ❖ Hex Spell :- Hex is one among the most powerful spells in the game. It renders a player unable to cast spells for 3 turns, which will be sufficient for the other player to score 3 goals and win the game.
  - Hex spell is the fourth spell in the spell HUD.
  - This spell creates a projectile which upon contact with the other player changes the player into a chicken rendering the player unable to cast spells or block ball for 3 turns
  - Hex spell projectile should not interact with anything else. Upon contact with a ball, the hex projectile should not change the position of the projectile
  - In the event that both players sent hex spell against each other, the both of them will get unhexed, but three turns would pass instantaneously rendering thus reducing 3 from all spells cooldown
  - The hex spell should only be available after 4 turns once it is cast.
- ❖ Curse Spell
  - Curse spell reduces accuracy of the person who does it.
  - The accuracy of the player is set to 20% of the accuracy value upon being hit with the curse spell projectile.
  - The curse spell projectile should not interact with the ball. On collision with ball it should not affect the position and velocity of the ball
  - Curse spell affect should only last for a turn and curse spell should be available once in 3 turns.
- ❖ Rune tracer
  - Build and launch game
  - Click each spell button; there should be an unique rune for each spell. Once a rune is displayed, it should be impossible to click more buttons (thus spawning runes on top of each other)
  - The rune will consist of various green-colored crystal sprites; they must be traced in the direction from lighter -> darker colors. Once a rune has been moused over, it will turn purple. Runes may not be skipped.
    - Check whether it's possible to skip runes (e.g. by mousing over the first rune, or the lightest-green rune, then mousing over the last rune, or the darkest-green rune). Skipping runes should not be possible.
  - There will be a time limit in which you can trace the runes. The rune tracer minigame will end if that time limit is exceeded. There will be a timer indicating the time left on the top left.
    - Wait out for about 8 seconds; ensure that the game will end and the screen will be cleared
  - Ensure that tracing all the runes will end the game regardless of time spent.
  - Ensure that the greater the number of runes traced, the higher the accuracy of the spell casted.

#### ❖ Monster Spell

- Build and launch game
- Click monster spell button
- Perform the trace and aim the spell somewhere on the ground
- Confirm that a monster appears in the appropriate area (depending on your accuracy it might not be exactly where you selected)

❖ Monster Coach

- Build and launch game
- Spawn one monster for each player in which they are not the same distance away from the ball
- Confirm that the monsters do not move until one turn after their initial spawn
- Confirm that the monster closer to the ball moves towards the ball and eventually shoots it towards the goal of its “enemy”
- Confirm that the monster furthest from the ball moves to “block” the other player