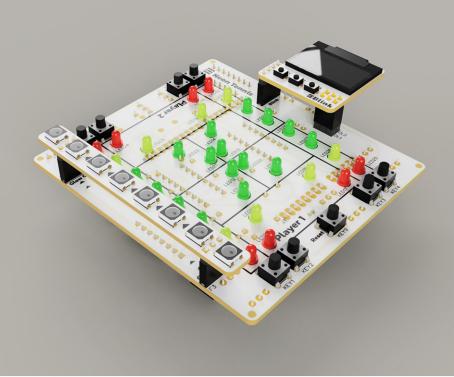


## Neon Tennis

# Rules and Gameplay Instructions



#### Description

Neon Tennis is an Arduino-compatible game shield designed for two players. It features 32 LEDs arranged in specific lines to simulate a tennis court. Players compete by hitting a virtual ball back and forth using buttons on the shield, testing their reaction times and strategic skills. The shield includes an OLED screen for scores and game status, as well as a Glow RGB strip for visualizing serve power. It is a hands-on project that merges electronics, programming, and gaming for makers of all levels.

**Neon Tennis** 

www.amazon.com/dp/BOD86PYZBD

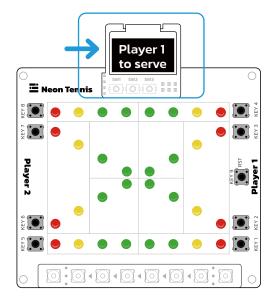


### **Gameplay**

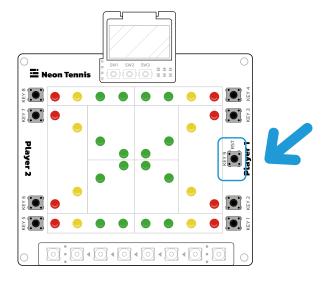
#### **Start the Game**



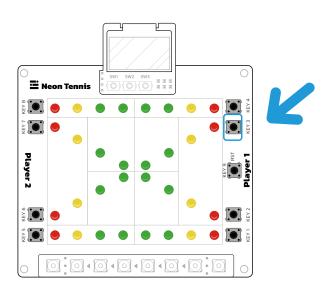
When the game powers up, you should see the intro animation on the amomii Blink screen, followed by the command, "Player 1 to serve".



If the animation doesn't show on startup, try waiting 10 seconds and then pressing the **Reset button**.



The button to press for the first serve is indicated by a blinking red light next to KEY 3.

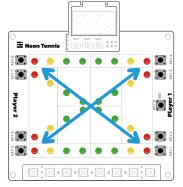


#### Serving



As with regular tennis, you must serve across the court, from right to left or left to right.

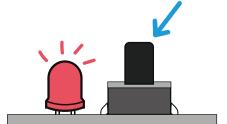




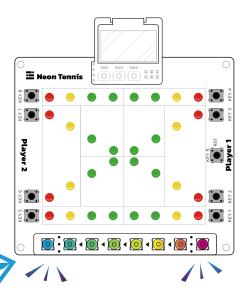


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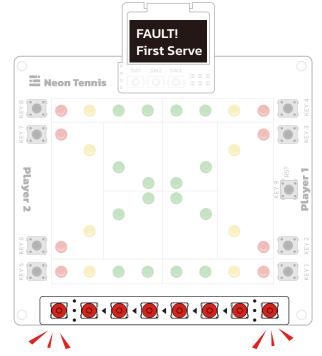
The serve position and player are always indicated by a flashing red LED at the start of a game. The key (button) closest to the flashing red light is called the Serve KEY.



To serve, a player must press and hold the Serve KEY. The length of time the Serve KEY is pressed determines the speed of the serve, indicated by the **amomii Glow** strip on the side



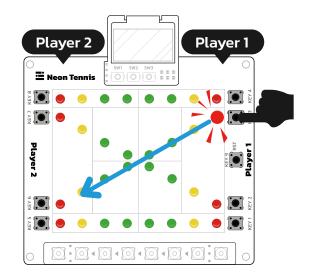
However, if the Serve KEY is held for too long, the Glow strip will turn red, a buzzer will sound, and the words "FAULT! First Serve" will display on the Blink module. If a player faults twice in a row, they lose the point.



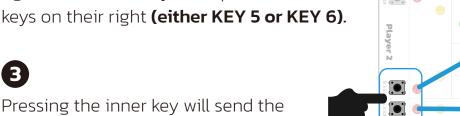
#### Returning



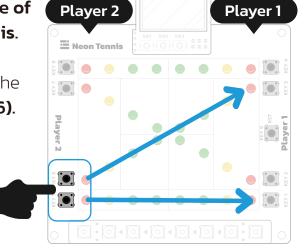
Let's say Player 1 is serving. If the serve is successful (no fault), the ball (represented by glowing LEDs) moves across the court (diagonally) to Player 2.



To return the ball, Player 2 must press **one of** the two keys on the side where the ball is. For example, if the ball is on Player 2's right-hand side, they must press one of the



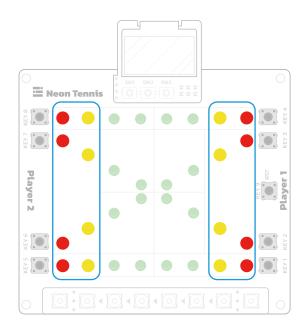
ball back cross-court to Player 1, while pressing the outer key will send the ball back down the line.



However, a player must time their return correctly. A player can only return the ball when either the yellow or red LED is **lit up**. If they press the key too early, too late, or press the wrong key, they lose the point.



After Player 2 successfully returns the ball, Player 1 must then return the ball using the same method, and the rally continues until one player misses.



#### **Game Speed**

Other than the serve, the speed of the ball movement starts guite slow (this is editable in the code). However, a player can increase the speed of their returns by timing them well.



Each time the ball is returned when the red LED is glowing, that player's **speed will increase slightly**. This way, each game gets progressively quicker and more difficult the longer a rally goes.



If the ball is returned when the yellow LED is glowing, that player's speed does not change.

#### **Scoring**

The scoring in Neon Tennis follows traditional tennis rules, with a few modifications. Here's how it works:

#### Points:

- Love (O points)
- 15 (1 point)
- 30 (2 points)
- 40 (3 points)
- Deuce: When both players reach 40 points.
- Advantage: The next point won after deuce gives the player advantage. If the player with advantage wins the next point, they win the game. If the opposing player wins, the score returns to deuce

#### Games:

- To win a game, a player must win by at least two points.
- The player who wins a game increments their game count by one.
- The server will be set automatically at the start of each game.

#### Sets:

- A player must win a set by winning at least 6 games, with a margin of two clear games. For example, a set score can be 6-4 or 7-5.
- If both players reach 5 games each, the set continues until one player wins by two clear games (e.g., 7-5, 8-6).

#### Matches:

To win a match, a player must win 3 sets.



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