



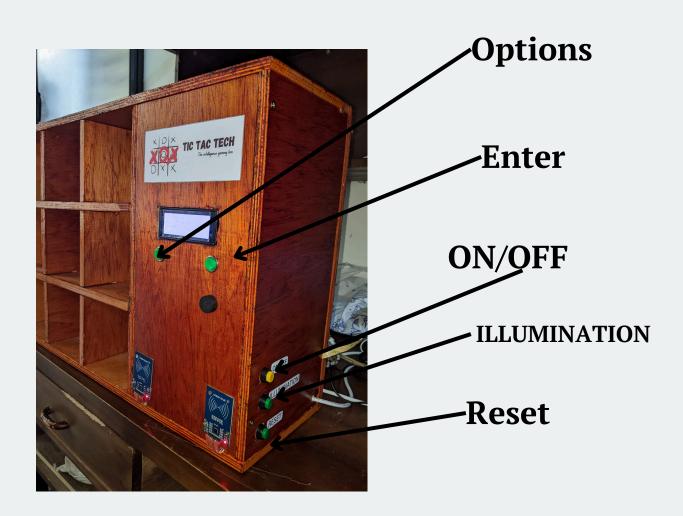
# TIC TAC TECH USER MANUAL

WELCOME TO OUR PRODUCT

# Welcome Message

Welcome to the Tic-Tac-Toe Game! This game, designed using an Arduino Mega and ESP32, features 9 LED-lit boxes, an LCD screen, 2 RFID readers, and IR sensors in each box. The game offers an engaging and aesthetic experience with customizable LED colors and various game modes.

Moreover ,This gaming box contains a led strip around the box.That can be switched manually using a switch.



# Setup



#### Mounting

Securely hang the game box on the wall using appropriate hardware

#### Power On

Connect the power supply.

#### **Initialization**

Upon powering up, the LCD screen will display "Welcome to Tic-Tac-Toe!"

# Game Modes

01 Single Easy Mode

Play against a simple AI.

02 Single Hard Mode

Challenge yourself against a more difficult Al.

03 Double RFID Mode

Two players use RFID cards to take turns. There are 2 rfid readers that the user can use to verify their identity.

04 Double No RFID Mode

Two players take turns without using RFID cards.Here,RFID is not required to play the game.

# **How to Play**



# Select the color

Select the color to play the game. The 2 players has to select a color before play the game.



# Select the game mode

Select the game mode using the control buttons and confirm your choice. For Double RFID Mode, scan your RFID card to begin.

# Selecting a Box Player 1 brings their hand near a box; the corresponding LED will light up with the selected color. The LED color will change to indicate Player 1 or Player 2's mark. Player 2 repeats the process.



**W**inning the Game

The game continues until one player gets three marks in a row (horizontally, vertically, or diagonally). The LCD screen will display "Player X Wins!" or "Player O Wins!" accordingly.



### **Draw Condition**

If all 9 boxes are filled and no player has three marks in a row, the game ends in a draw.

# Restarting the Game

To start a new game, press the 'Restart' button.



# **Safety Precautions**



Handle all electronic components with care.



Avoid exposing the game to water or extreme temperatures.



Disconnect the power supply before making any hardware adjustments.



Use this device indoors only. Outdoor usage may cause damage or malfunction.

## Customization

- LED Colors: Players can select their preferred colors using the control buttons before starting the game.
- LED Strip Illumination: The LED strip around the game box can be manually switched on or off, providing an aesthetic enhancement to the environment.

