

# Software Requirements for Race It

## Race It

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### Overview

This document describes requirements for the software implementation of a newly invented, kid friendly game called Race It. This Software will allow two players to play against each other. A description of the game plus the requirements of this implementation are provided below.

### The Game

Two players, get their own path made up of a single line of squares. The players take turns clicking the die which presents a random number from 1 to 6. According to which number they get the player's path gets color coded with that number of squares. The first player's path gets color coded in red and the second player's path turns blue. Some squares will have symbols, if the player hits a symbol, the player will have to advance or move back 1 to 2 squares according to the symbol's role. The Symbols' roles will be explained below, by the game's process and rules. The player that reaches the top first, wins.

### Software Implementation

#### UI elements

The software will present the Race It game with the UI elements listed below.

- Two identical paths with a single line of 20 labels each.
- Row of 3 three functions on top of the screen:
  - Start button
  - Label to display Game Status message
  - Die button

#### Game Process and Rules

- The game starts when the player clicks start. Until then all squares are blank, the die is disabled and the game status message is "Click Start to begin game".
- After start is clicked the message "Red's turn to race!" is displayed. The bottom square of the path is colored, the first path red and the second blue. The Start button also generates the symbols in random squares.
- Red takes turn by clicking the die. Red's path will fill up with that number of squares. If Red hits a symbol:
  - 🖐 - It will advance one step
  - 🦶 - It will move back one square
  - ✌ - It will advance two steps
- Once Red clicked the die the game status message will be "Blue's turn to race!". The game then repeats the steps above.
- When all squares in either path fills up, that player wins. The status message is "Blue (or Red) Won!!!". The die is disabled. The player has to click start to restart the game.

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