

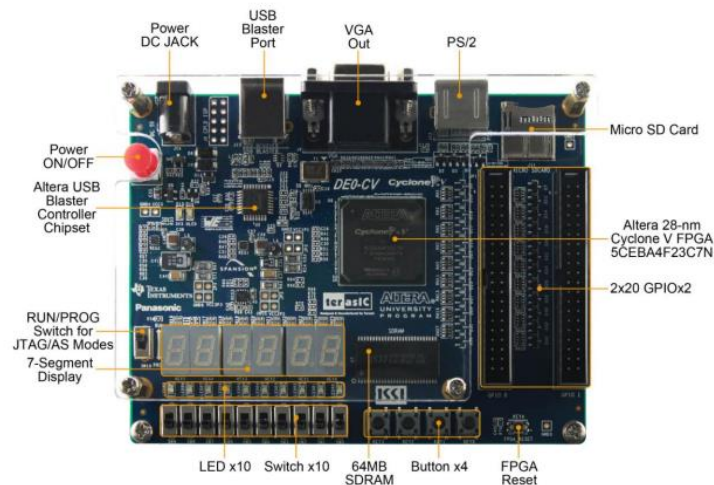
User Manual

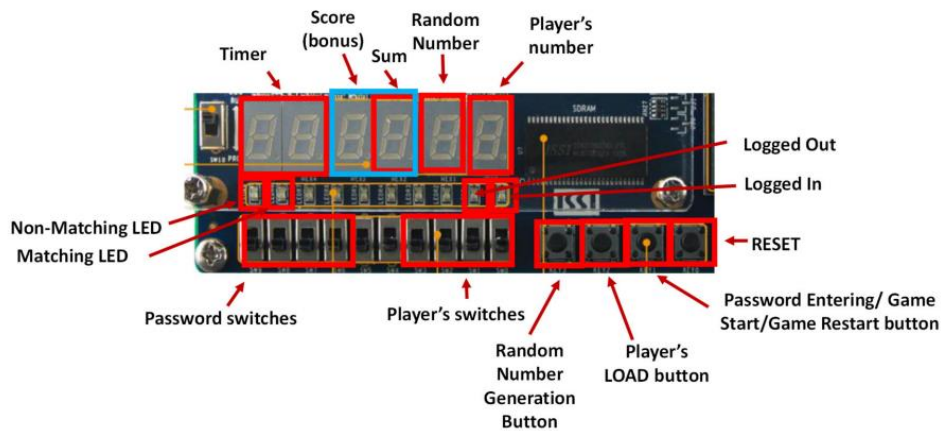
A) Description

In this game, the player enters a 4-bit number using switches. The system generates a random number between 0 and 15 when the player presses and holds a button. The player must match the random number by entering their guess. The sum of the two numbers is displayed on three 7-segment displays, with LEDs indicating whether the sum equals 15 or not.

The game is timed, with 99 seconds on the clock. The timer starts after the password is verified and counts down during gameplay. Once the timer reaches zero, no more numbers can be entered. Pressing the GAME button resets the timer. The player's score, based on successful rounds, is displayed at the end.

B) Board Picture





C) Gameplay Examples

Failed Attempt (Example Round)

1. (RNG Turn):
 - The system generates a random number (binary 0011, decimal 3).
 - The 7-segment display for the sum and RNG updates to show 3.
2. Player 2's Turn:
 - Player 2 sets (binary 1000, decimal 8).
 - Player 2 display updates to 8.
 - The sum updates to 11 (B).
 - The non-matching LED lights on, indicating a non-match.

Successful Attempt (Example Round)

1. (RNG Turn):
 - The system generates a random number (binary 0101, decimal 5).
 - The sum updates to 5.
 - Player 1 display updates to 5.
2. Player 2's Turn:
 - Player 2 sets (binary 1010, decimal 10).
 - Player 2 display updates to 10.
 - The sum updates to 15 (target reached).
 - Matching LED turns on, indicating a match.
 - A point gets added to the scoring system.

Login Attempts

Successful Login Attempt

1. Password Entry:

- Player 2 enters the correct password using switches: 1001 (9), 1000 (8), 0110 (6), 0001 (1).
- The system verifies the password as 1111 (binary) / 15 (decimal).
- The LogIn LED turns on, indicating a successful login.
- The game proceeds, with the system generating a random number for Player 1 to match.

Failed Login Attempt

1. Password Entry:

- Player 2 enters an incorrect password using switches: 1001 (9), 0000 (0), 0110 (6), 0001 (1).
- The system checks the password but it does not match 1111 (binary) / 15 (decimal).
- The LogIn LED stays off, and the LogOut LED stays on, indicating that the system is not logged in.
- Player 2 must retry entering the correct password to log in and begin the game.