Game Instruction: Colour War

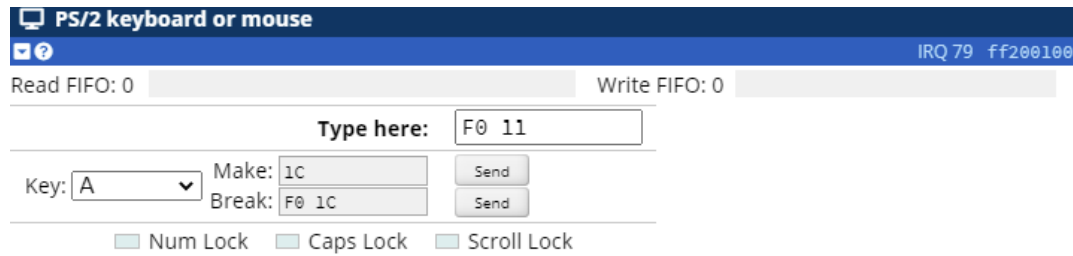1. **Start Game**: In the PS/2 Keyboard Interface, press *space* to start the game.

Figure 1: PS/2 Keyboard Interface

2. **Select Players**: Choose your favourite colour as your player by press A/D or left/right key for Player 1 (P1) and Player 2 (P2) respectively, then press *enter* to enter the game time selection page.
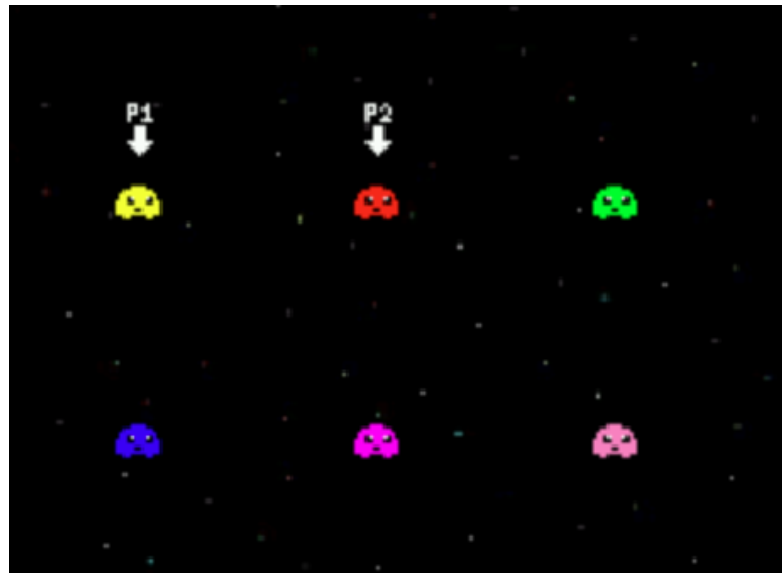

Figure 2: Player Selection

3. **Select Game Time**: Press the corresponding number to choose your game time, then you will enter the battlefield, the time left in seconds will be shown on the HEX display, see Figure 4 for HEX display.

Figure 3: Time Selection

4. **Fight**: For player 1, use the *A/D/W/S* key to control direction, and *Left/Right/Up/Down* to control player 2. Note that press only when you want to change direction, you can not speed up by holding the key.

Figure 4: Game Ongoing

5. **Score**: The score for each player is displayed on the top right corner, it is calculated based on the number of squares you coloured by passing through the square. Random coins will be generated on the battlefield. Extra scores will be awarded for players who collect (pass-through) it.
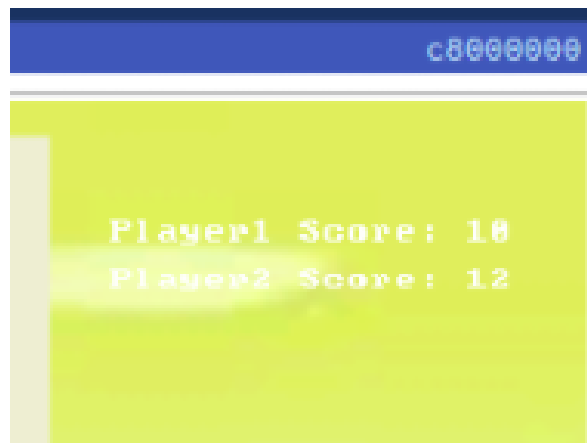

Figure 5: Player Score

6. **Result**: The game ends when your choice of time runs out, whoever has the highest score wins the game. Note that tie is also possible for this game.

Attribution Table

Task	Owner
Extend the game to two Players	Shaoyang
Paint the path color	Shaoyang
Add time choose functionality	Shaoyang
Announce the winner	Shaoyang
Write Game instruction	Shaoyang
Enable players to move, turn at specific location	Shutong Zhang
Enable Hex display, PS2, pixel buffer, character buffer, timer, interrupt	Shutong Zhang
Draw all backgrounds, players and game board	Shutong Zhang
Add choose player color functionality	Shutong Zhang
Add random coins functionality	Shutong Zhang