

State Machine for PF2E AUTO BATTLER (RPG Game)

Initial State

Intro Screen

- **Trigger:** Game starts
- **Action:** `draw_intro_screen()`
- **Transition:** → Class Selection

Class Selection

- **Trigger:** User selects a class
- **Action:** `choose_class(choice)`
- **Transition:** → Battle Start

Battle Start

- **Trigger:** `start_battle()` called
- **Actions:**
 - Setup characters, enemies
 - `draw_grid()`, `draw_turn_indicator()`
- **Transition:** → Player Turn

Player Turn

- **Trigger:** Player selects an action (e.g., move, attack, spell)
- **Actions:**

- `handle_click()`
- `get_valid_targets()`
- `perform_action(action_func, target)`
- **Transition:**
 - If turn ends → Next Turn
 - If action fails or cancels → Remains in Player Turn

Enemy Turn

- **Trigger:** `handle_enemy_turn()` called by `next_turn()`
- **Actions:**
 - Enemy AI selects and executes actions
 - Effects may be triggered via `add_effect()`
- **Transition:** → Next Turn
- **Trigger:** Player or enemy completes turn

Next Turn

- **Action:** `next_turn()` determines next character
- **Transition:**
 - If more turns remain → back to Player Turn or Enemy Turn
 - If wave complete → Wave Complete Check

Wave Complete Check

- **Trigger:** All enemies defeated
- **Action:** `check_wave_complete()`
- **Transition:**
 - If victory → Upgrade Selection
 - If more waves → Wave Confirmation
 - If all waves done → End Game

Upgrade Selection

- **Trigger:** `start_upgrades()` is called
- **Actions:** Show upgrade options, call `apply_upgrade()`
- **Transition:** → Wave Confirmation

Wave Confirmation

- **Trigger:** Player confirms to continue
- **Action:** `continue_to_next_wave()`
- **Transition:** → Battle Start

End Game

- **Trigger:** Player loses OR final wave completed
- **Actions:** `draw_end_game_screen()`
- **Terminal State**

Transitions Overview

[Intro Screen]



[Class Selection]



[Battle Start]



[Player Turn] ↔ [Enemy Turn]



[Next Turn]



[Wave Complete Check]



[Upgrade]

[End Game]



[Wave Confirmation]



[Battle Start] (loop)