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

Party Turn

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

- o handle_click()
- o get_valid_targets()
- o perform_action(action_func, target)
- **Transition**:
  - o If turn ends → Next Turn
  - o If action fails or cancels → Remains in Player Turn
- **Party AI**:
  - o Trigger: player uses all actions → AI uses their actions
- Actions:
  - o AI selects and executes actions
  - o Effects may be triggered via add_effect()

Enemy Turn

- **Trigger**: handle_enemy_turn() called by next_turn()
- **Actions**:
  - o Enemy AI selects and executes actions
  - o 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)