Project Title: **Tiny Slot Machine**

A slot machine where LEDs simulate spinning reels. The player presses a button to stop each reel, and if the final pattern matches a winning combination, the LEDs lights up!

Technical

1. Three "reels" represented by LEDs
    - The symbols change using a shift register
2. Spin and Stop Mechanism
    - The player presses a spin button to start spinning
    - Three separate stop buttons allow stopping each reel independently
3. Winning Condition
    - Store predefined winning patterns
    - If the stopped reels match a winning pattern, all LEDs flash on and off
4. Randomness
    - Use a shift register and randomize spin results
5. Consideration: pairing dollar value to each of the winning conditions and adding it to a sum to show the player how much money they “won” at the end

I/Os

Inputs

- Spin Button
- 3 Stop Buttons
- Reset Button

Outputs

- 8 LEDs, 2 LEDs per reel with a space between each set of 2 to represent different symbols, all on when win

No Hardware Peripherals

Module Header

```
module tiny_slot_machine (
        input logic clk, rst_n, spin,
        input logic stop1, stop2, stop3,
        output logic [1:0] reel1, reel2, reel3,
        output logic [7:0] win_led
);
```