```
    assign load_x = 1'b0;
    assign load_y = 1'b0;
    assign load_colour = 1'b0;
    assign plot = 1'b0;

    always @(*)
    begin
        case(current_state)
            Load_x:
                load_x = 1'b1;
                enable = 1'b1;
            Load_y:
                load_y = 1'b1;
                enable = 1'b0;
            Load_colour
                load_colour = 1'b1;
            Draw:
                plot = 1'b1;
        endcase
    end

    always @(posedge clock) begin
        if(!resetn)
            current_state <= 3'd0;
        else
            current_state = next_state
    end
endmodule
```