



```
next_state = state; // default
```

```
case (state)
  3'b000: begin
    if (start_bit_detected == 1)
      next_state = 3'b001;
    end
  3'b001: begin
    next_state == 3'b010;
  end
  3'b010: begin
    if (packet_done == 1)
      next_state = 3'b011;
    end
  3'b011: begin
    if (if framing_error == 1)
      next_state = 3'b000;
    else
      next_state = 3'b100;
    end
  3'b100: begin
    next_state = 3'b00;
  end
endcase
```

```
sbc_clear = 0; // default
sbc_enable = 0; // default
load_buffer = 0; // default
enable_timer = 0; // default
```

```
case (state)
  3'b001: begin
    sbc_clear = 1;
    enable_timer = 1;
  end
  3'b010: begin
    enable_timer = 1;
  end
  3'b011: begin
    sbc_enable = 1;
  end
  3'b100: begin
    load_buffer = 1;
  end
endcase
```