



```

next_state = state;
case (state)
  IDLE: begin
    if(enable_timer == 1)
      next_state = CLEAR;
    else
      next_state = state;
    end
  CLEAR: begin
    next_state = COUNT;
  end
  COUNT: begin
    if((bit_count == 9) && (clk_count == 5))
      next_state = DONE;
    else
      next_state = state;
    end
  DONE: begin
    next_state = IDLE;
  end
endcase

```

```

if(state == CLEAR)
  clear = 1;
else
  clear = 0;
if(state == COUNT) begin
  enable_clk = 1;
end
else begin
  enable_clk = 0;
end
if(state == DONE)
  packet_done = 1;
else
  packet_done = 0;
if(rolloverflag_clk) begin
  enable_bit = 1;
  shift_strobe = 1;
end
else begin
  enable_bit = 0;
  shift_strobe = 0;
end
end

```