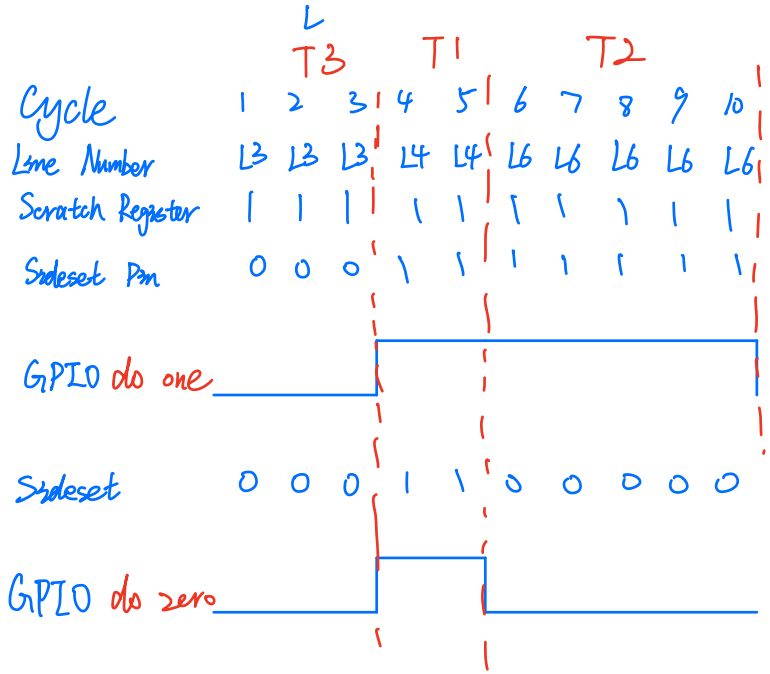
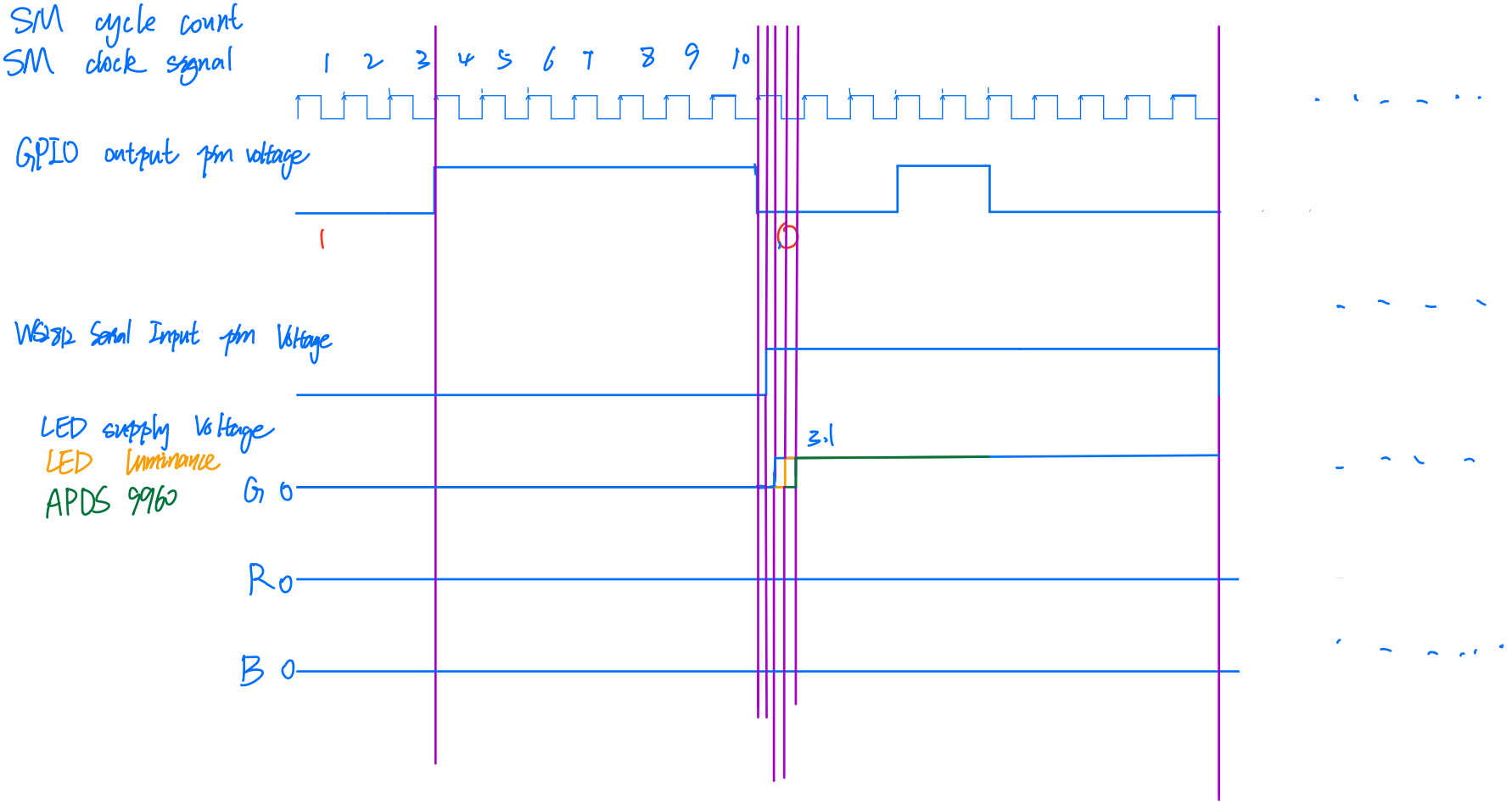
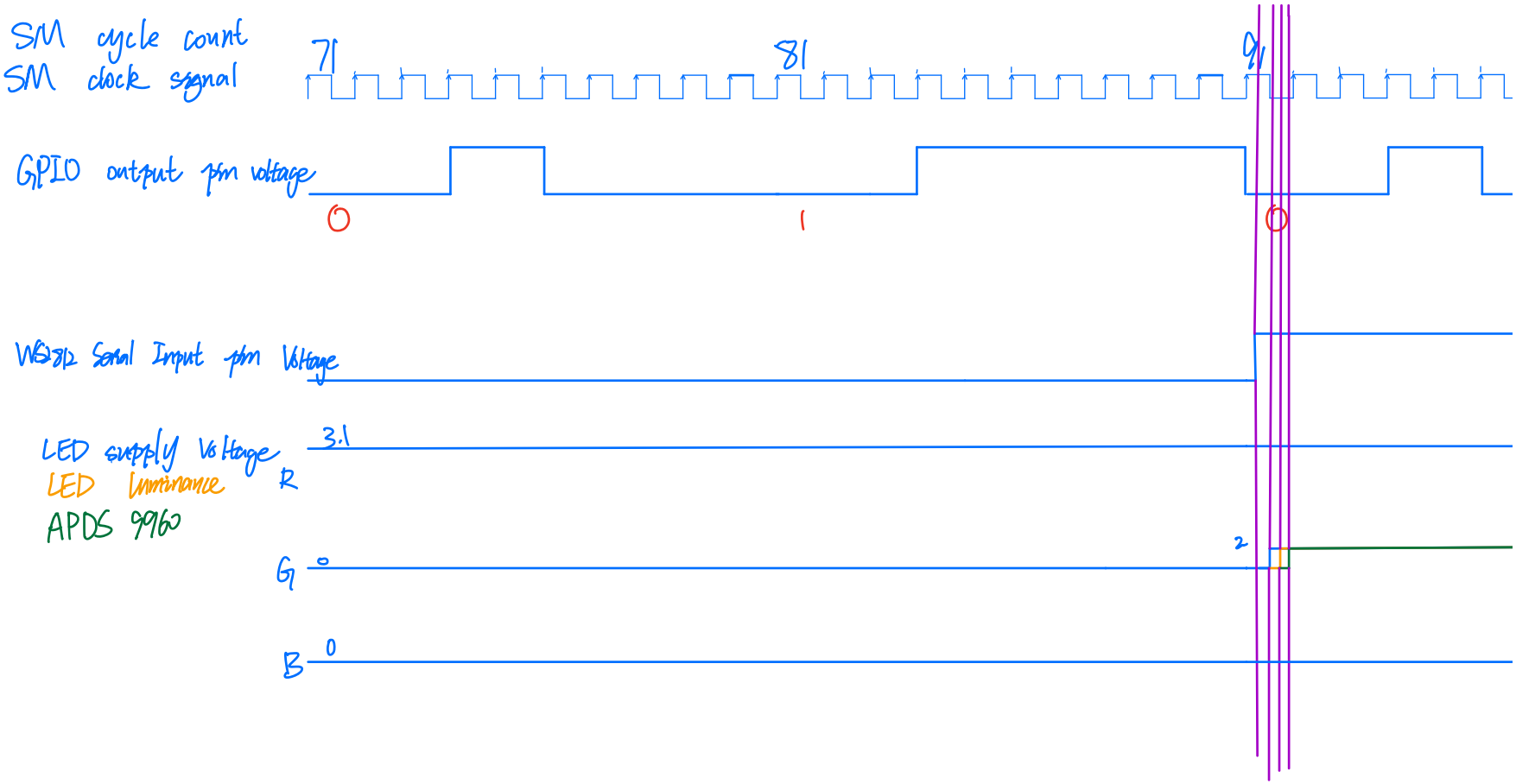
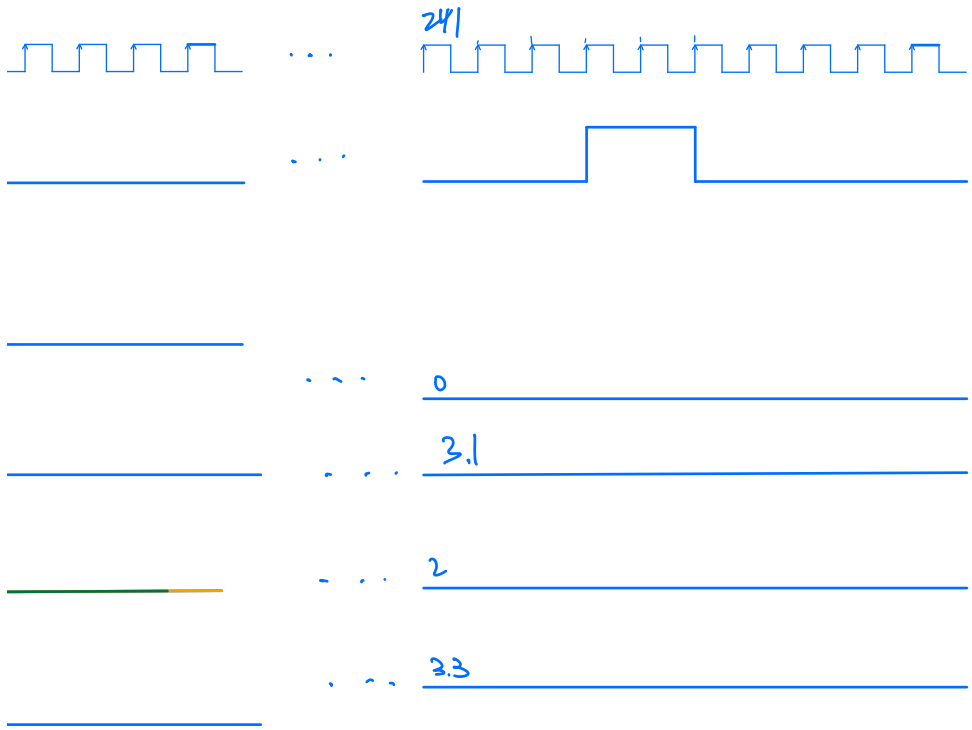
```
18 L1 .wrap_target
19 L2 bitloop:
20 L3     out x, 1       side 0 [T3 - 1] ; Side-set still takes place when instruction stalls
21 L4     jmp !x do_zero side 1 [T1 - 1] ; Branch on the bit we shifted out. Positive pulse
22 L5 do_one:
23 L6     jmp  bitloop   side 1 [T2 - 1] ; Continue driving high, for a long pulse
24 L7 do_zero:
25 L8     nop            side 0 [T2 - 1] ; Or drive low, for a short pulse
26 L9 .wrap
```

3 cycles
2 cycles
5 cycles




SM cycle count
SM clock signal
1 2 3 4 5 6 7 8 9 10
GPIO output pin voltage
1
0
WS2812 Serial Input pin Voltage
LED supply Voltage
LED luminance
APDS 9960
3.1
G 0
R 0
B 0


SM cycle count
SM clock signal
71
81
91
GPIO output pin voltage
0
1
0
WS2812 Serial Input pin Voltage
LED supply Voltage
3.1
LED Luminance
APDS 9960
R
2
G
0
B
0


24
0
3.1
2
3.3