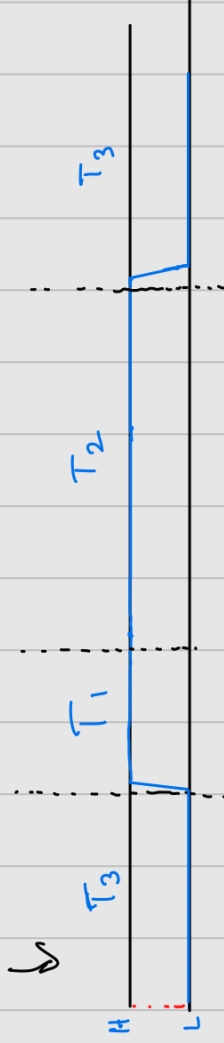


$$T_1 = 2 \quad T_2 = 5 \quad T_3 = 3$$

As our last bit of colour is 1

For $x=1$:

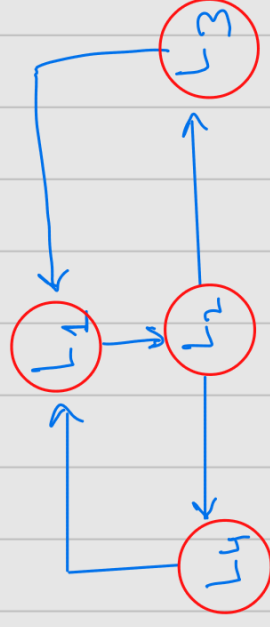


x
 $fr: 0 \ 0 \ 0 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1$

 $bo: 0 \ 0 \ 0 \ 1 \ 1 \ 1 \ 0 \ 0 \ 0$

```
.wrap_target
bitloop:
    L1 out x, 1      side 0 [T3 - 1] ; Side-set still takes place when
instruction stalls
    L2 jmp !x do_zero side 1 [T1 - 1] ; Branch on the bit we shifted
out. Positive pulse
do_one:
    L3 jmp bitloop  side 1 [T2 - 1] ; Continue driving high, for a
long pulse
do_zero:
    L4 nop
.wrap
```

side 0 [T2 - 1] ; Or drive low, for a short pulse



Our colour is Blue 0x000000FF

	①	②	③	④
Instruction	L ₁	L ₂	L ₃	L ₁
Is there Data in FIFO?	N	N	N	N
Is SM stalled?	N	Y	Y	Y
Delays left	2	1	4	2
Value of OSR	0x007F	0x007F	0x007F	0x003F
"X" variable	1	1	1	1
LED pin state	1	1	1	1

As only 1 32 bit packet of colour data was sent

As, for whole time

colour is loaded, we are trying to drive LED towards ①.

Sequence of execution:

```

.wrap_target
bitloop:
④ ①    out x, 1          side 0 [T3 - 1] ; Side-set still takes place when
instruction stalls
②      jmp !x do_zero side 1 [T1 - 1] ; Branch on the bit we shifted
out. Positive pulse
do_one:
③      jmp bitloop side 1 [T2 - 1] ; Continue driving high, for a
long pulse
do_zero:
nop          side 0 [T2 - 1] ; Or drive low, for a short pulse
.wrap

```