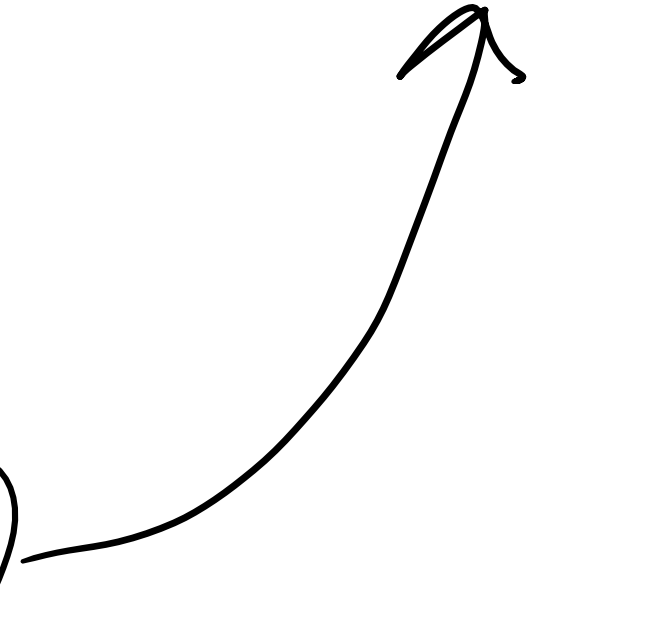
Interrupt

Timer / Counter overflow TCNTn

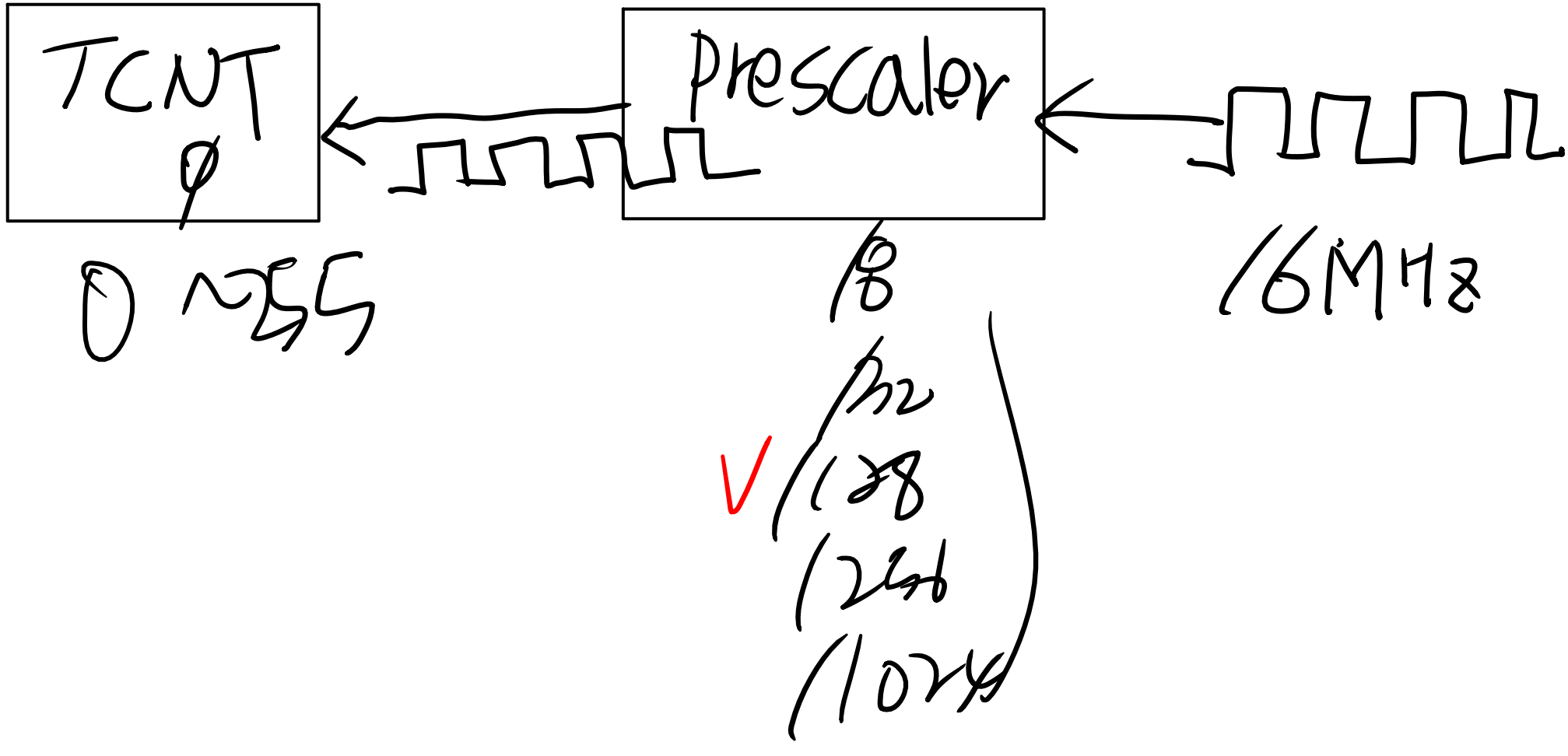
0 ~ 3 4EA

0, 2 8bit

1, 3 16bit.



Timer / Counter 0 : 8bit



Timer / Counter 2 : 8bit

prescaler 1/64 overflow Interrupt

1ms 마다 milisec ++;

milisec 32bit

milisec FND 찍자.

CTC mode

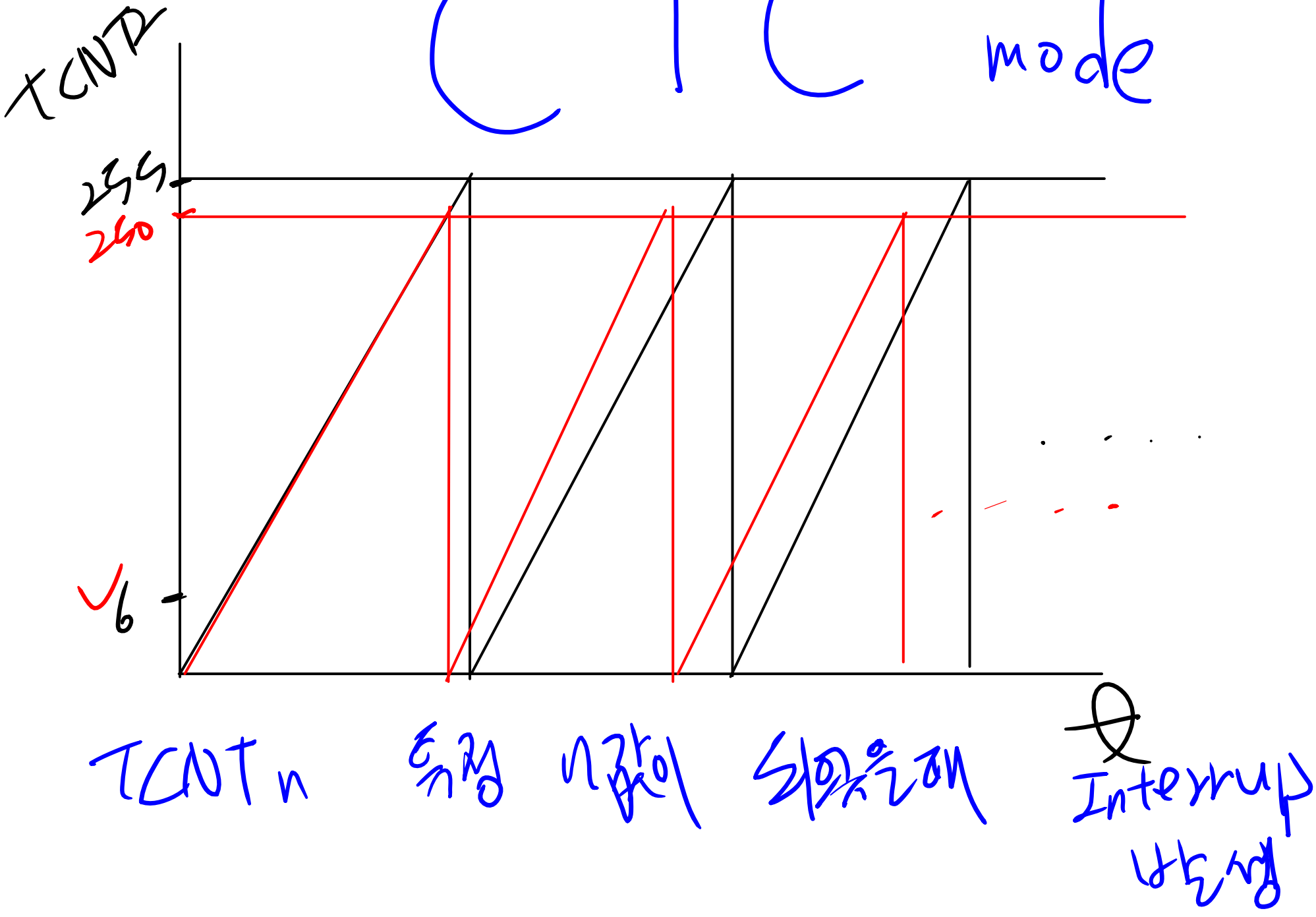
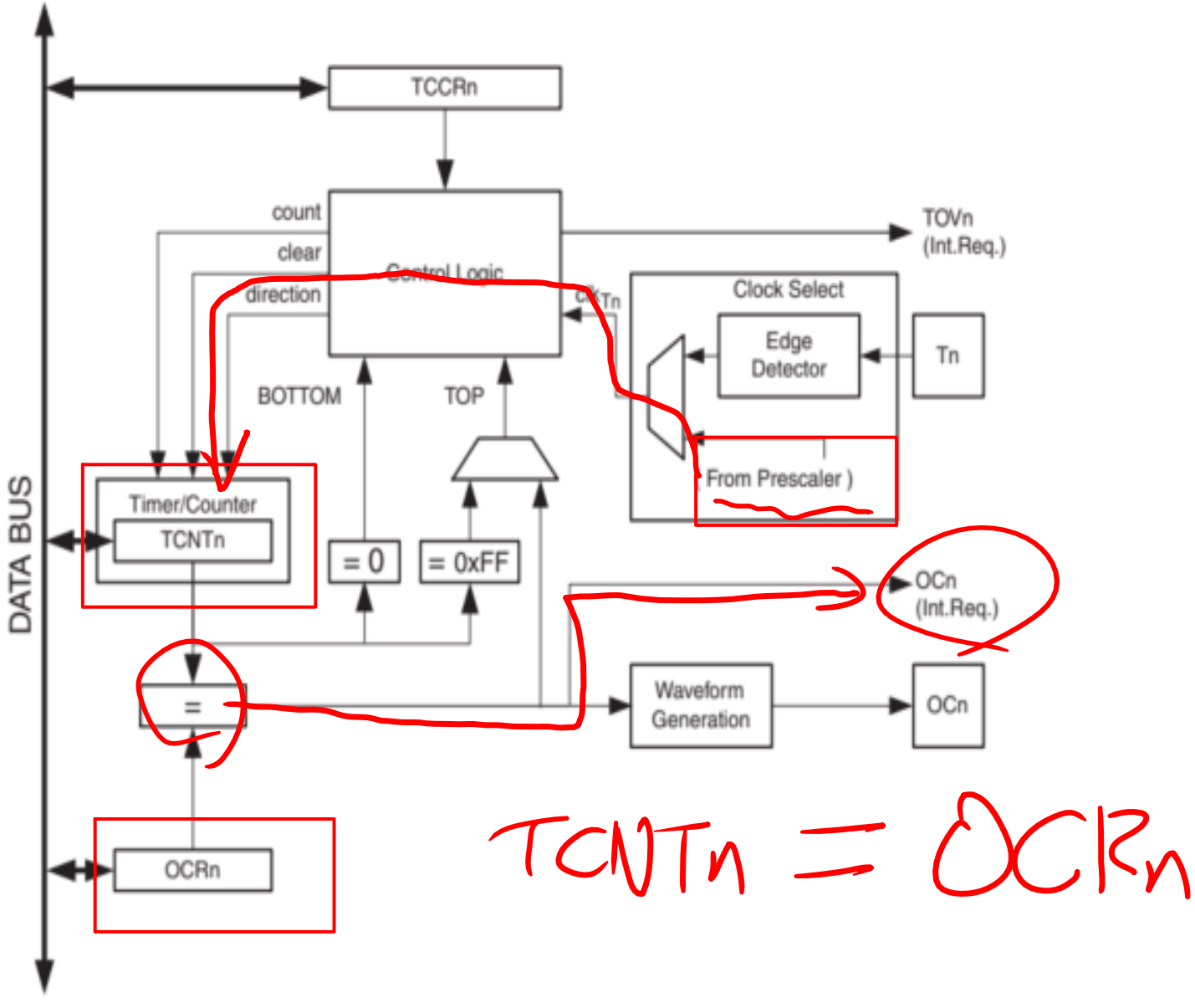


Figure 61. 8-Bit Timer/Counter Block Diagram



CTC mode 설정

① Prescaler 설정 - CS bit
TCCR,

② CTC mode 설정 - Register 설정 ?? bit

③ TIMSK

④-1 OCR ④-2 sei()

⑤ ISR()

Timer/Counter Control Register – TCCR2

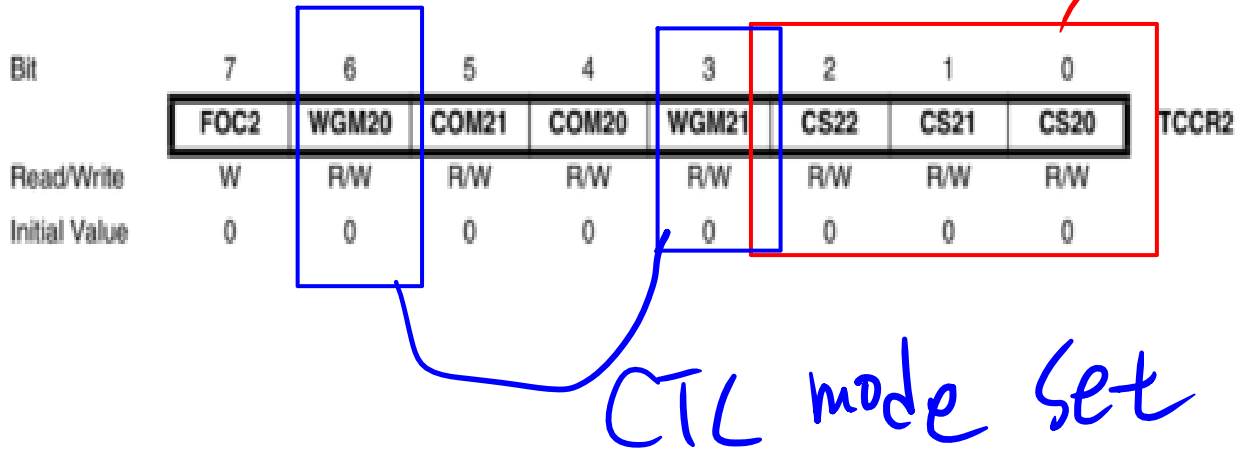
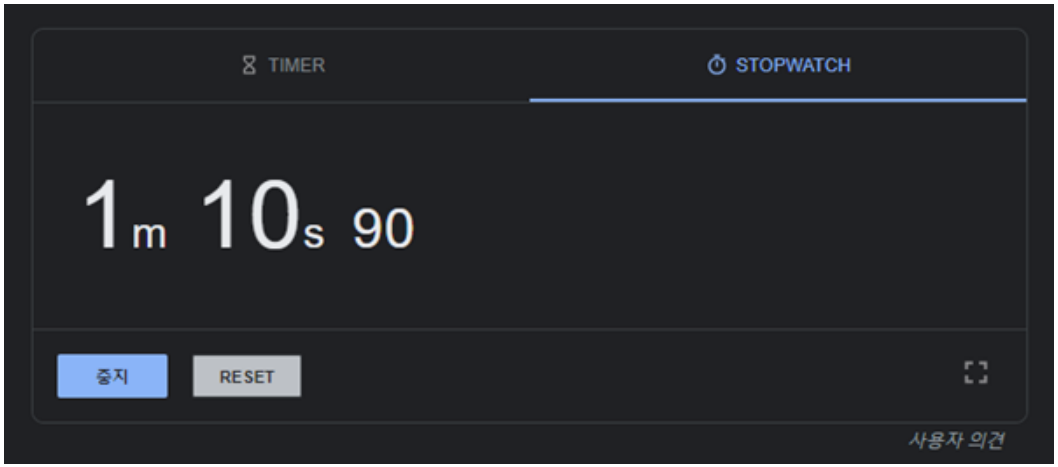
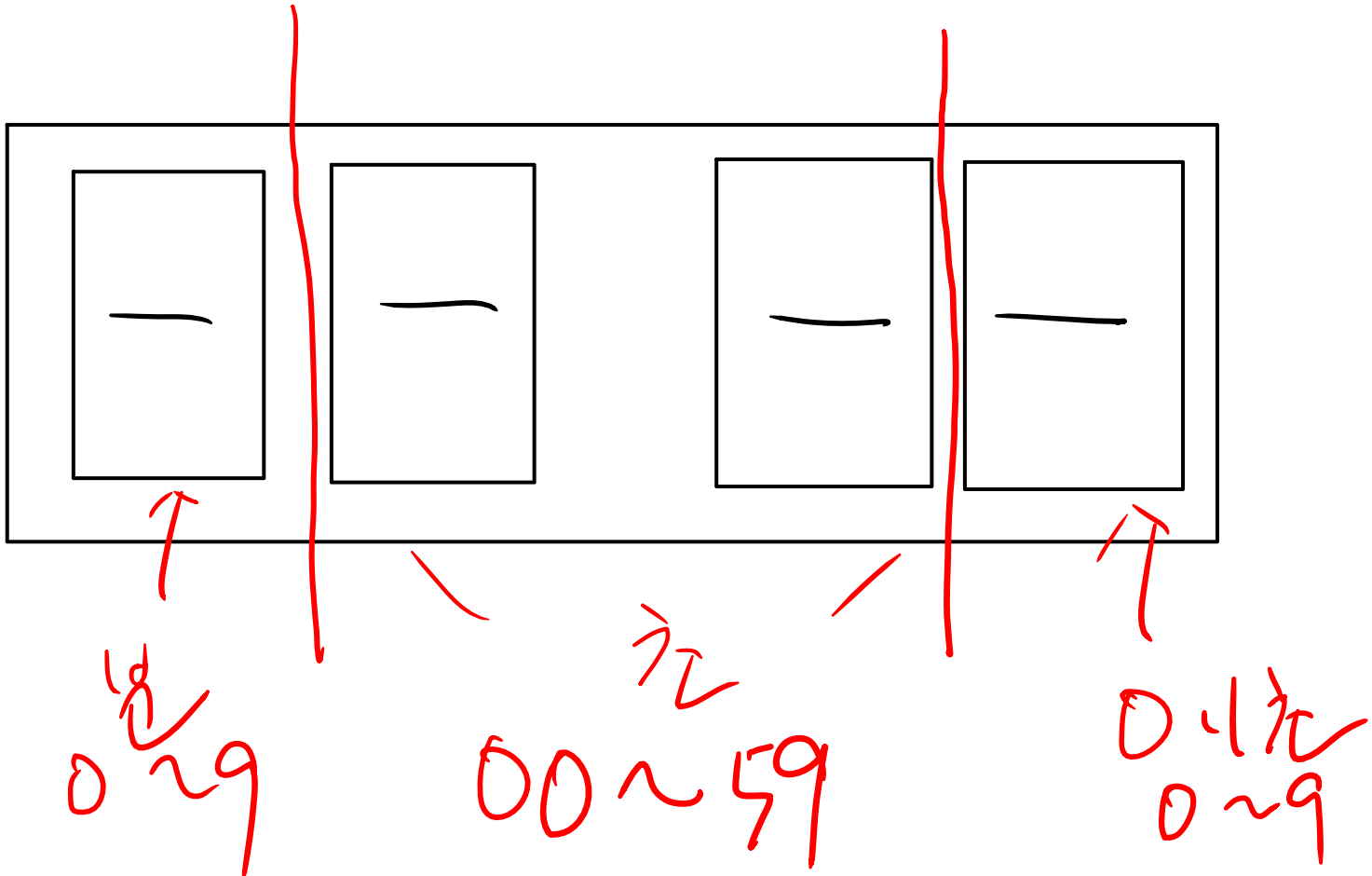
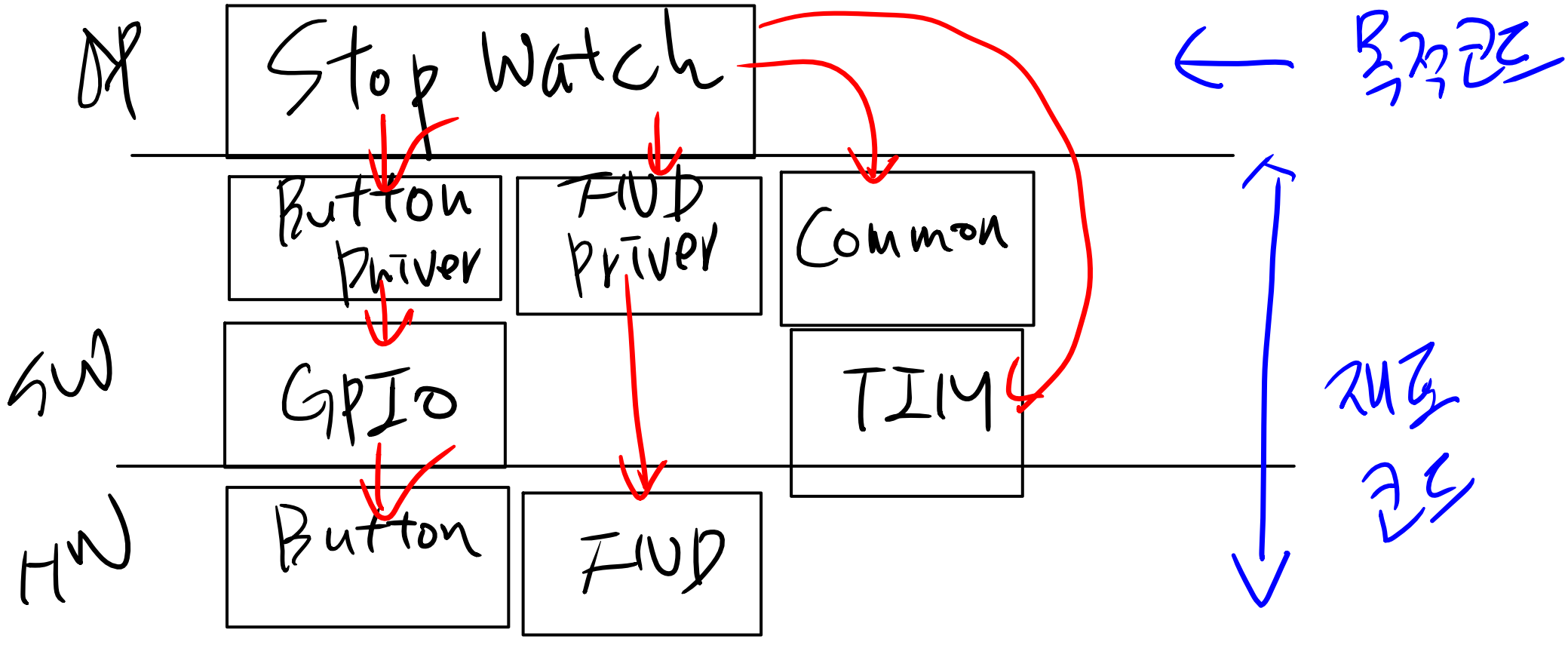


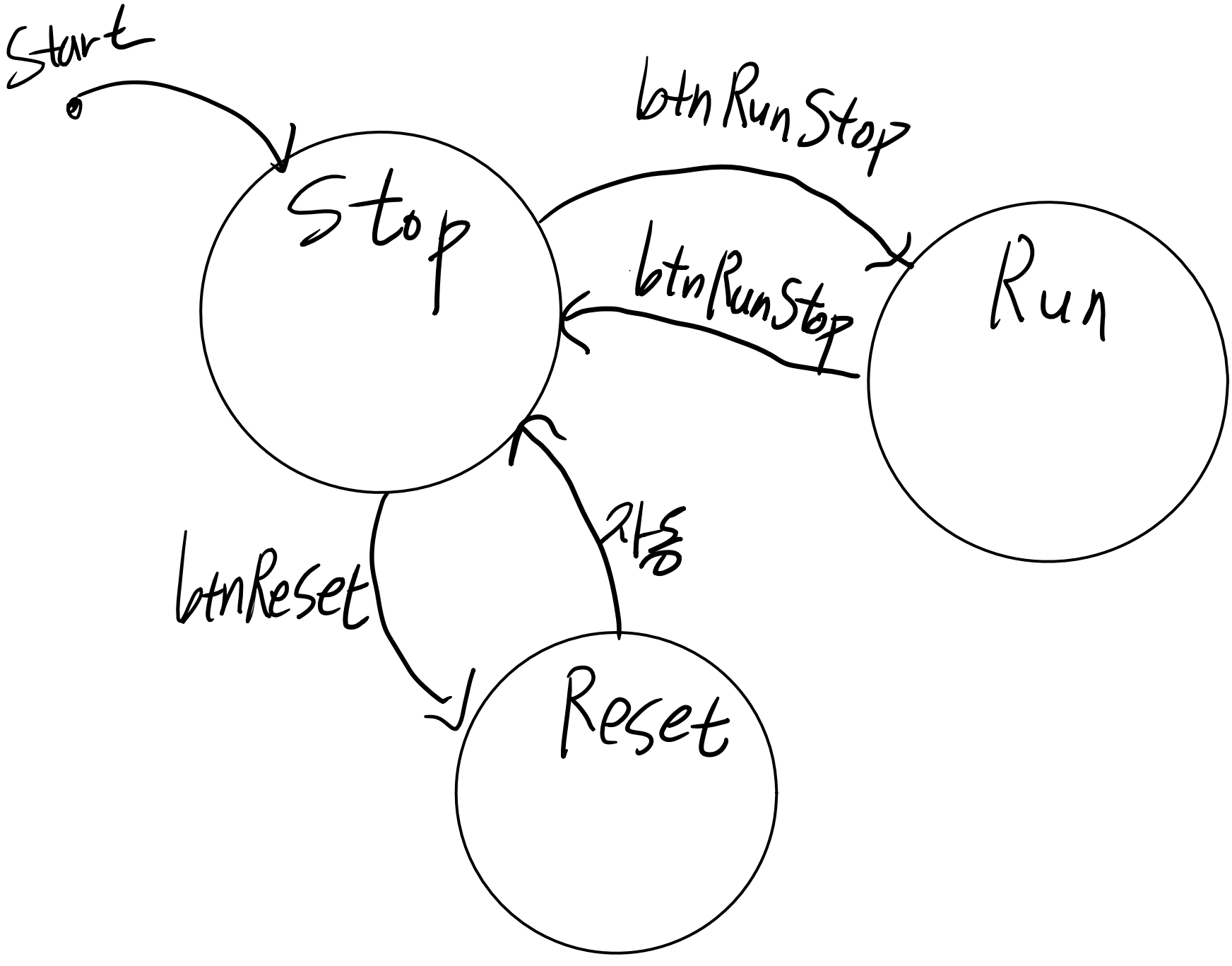
Table 64. Waveform Generation Mode Bit Description

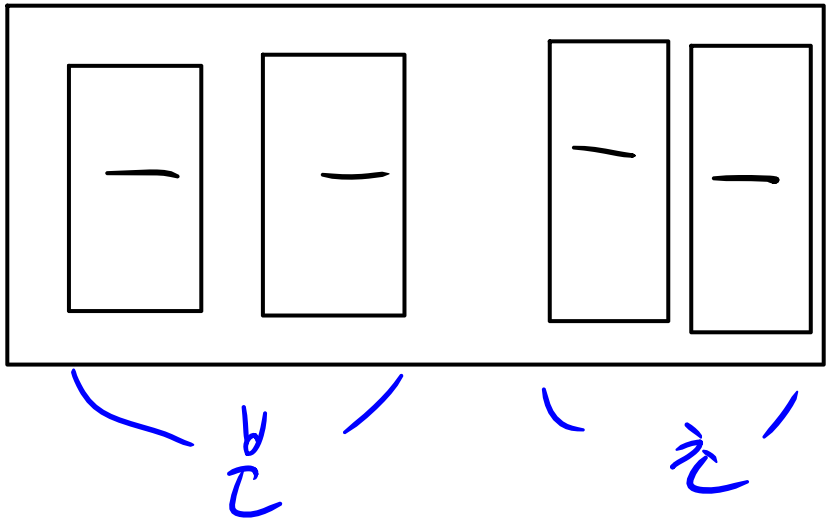
Mode	WGM21 (CTC2)	WGM20 (PWM2)	Timer/Counter Mode of Operation	TOP	Update of OCR2 at	TOV2 Flag Set on
0	0	0	Normal	0xFF	Immediate	MAX
1	0	1	PWM, Phase Correct	0xFF	TOP	BOTTOM
2	1	0	CTC	OCR2	Immediate	MAX
3	1	1	Fast PWM	0xFF	BOTTOM	MAX


TIMER
STOPWATCH
1m 10s 90
중지
RESET
사용자 의견

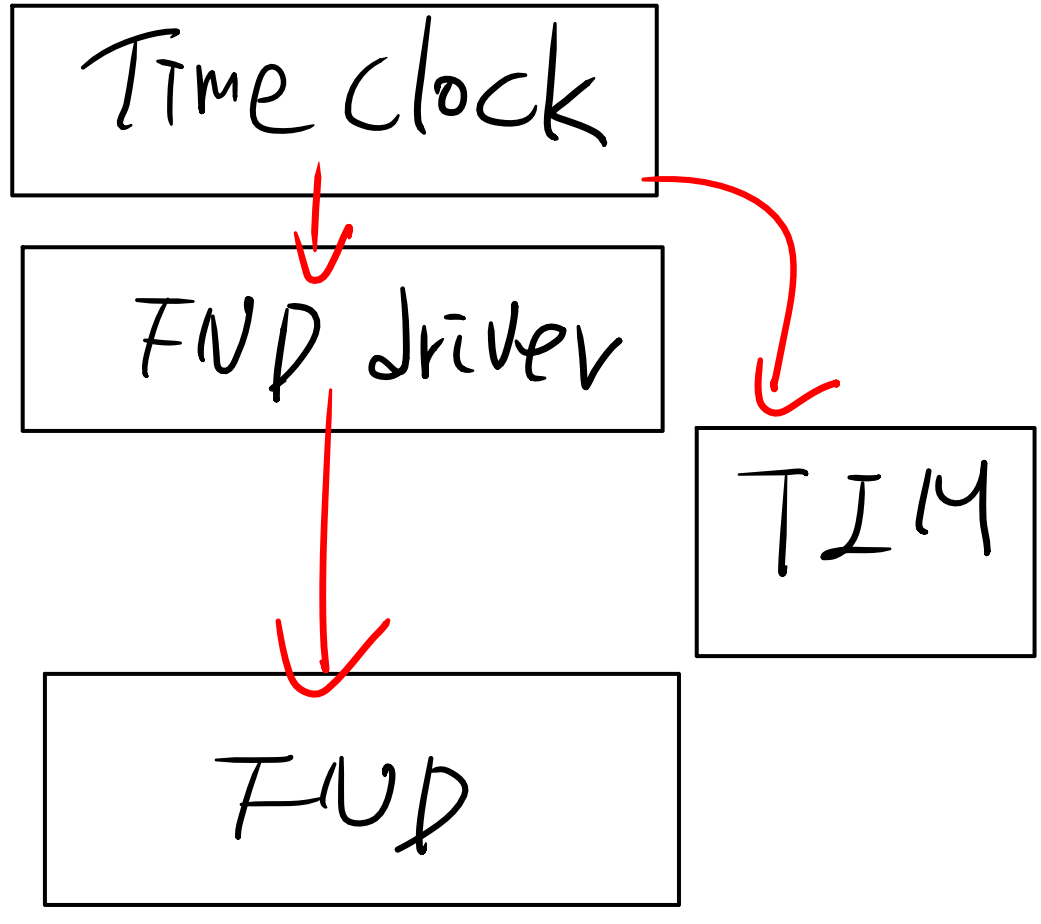

분
0~9
초
00~59
0.1초
0~9

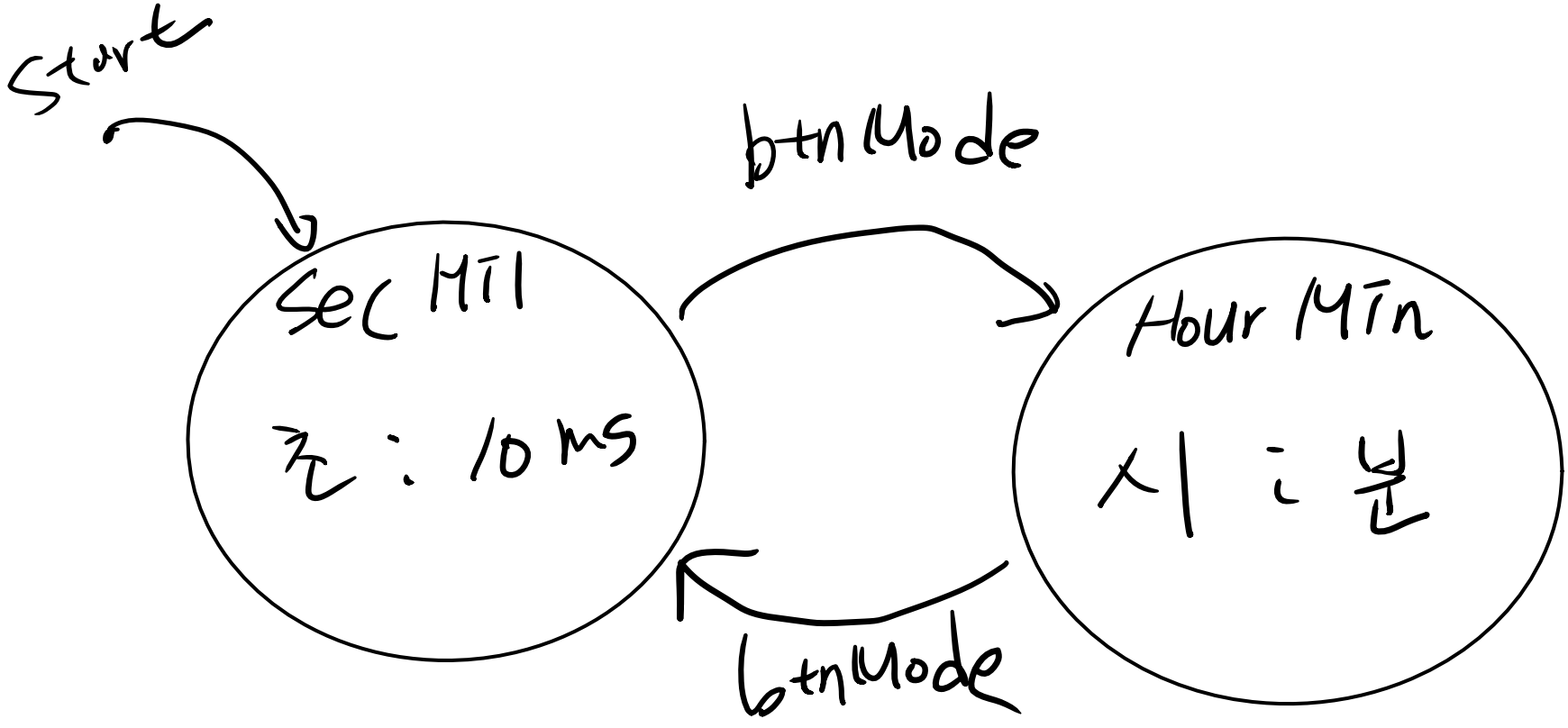

AP
Stop Watch
Button Driver
FND Driver
Common
SW
GPIO
TIM
HW
Button
FND

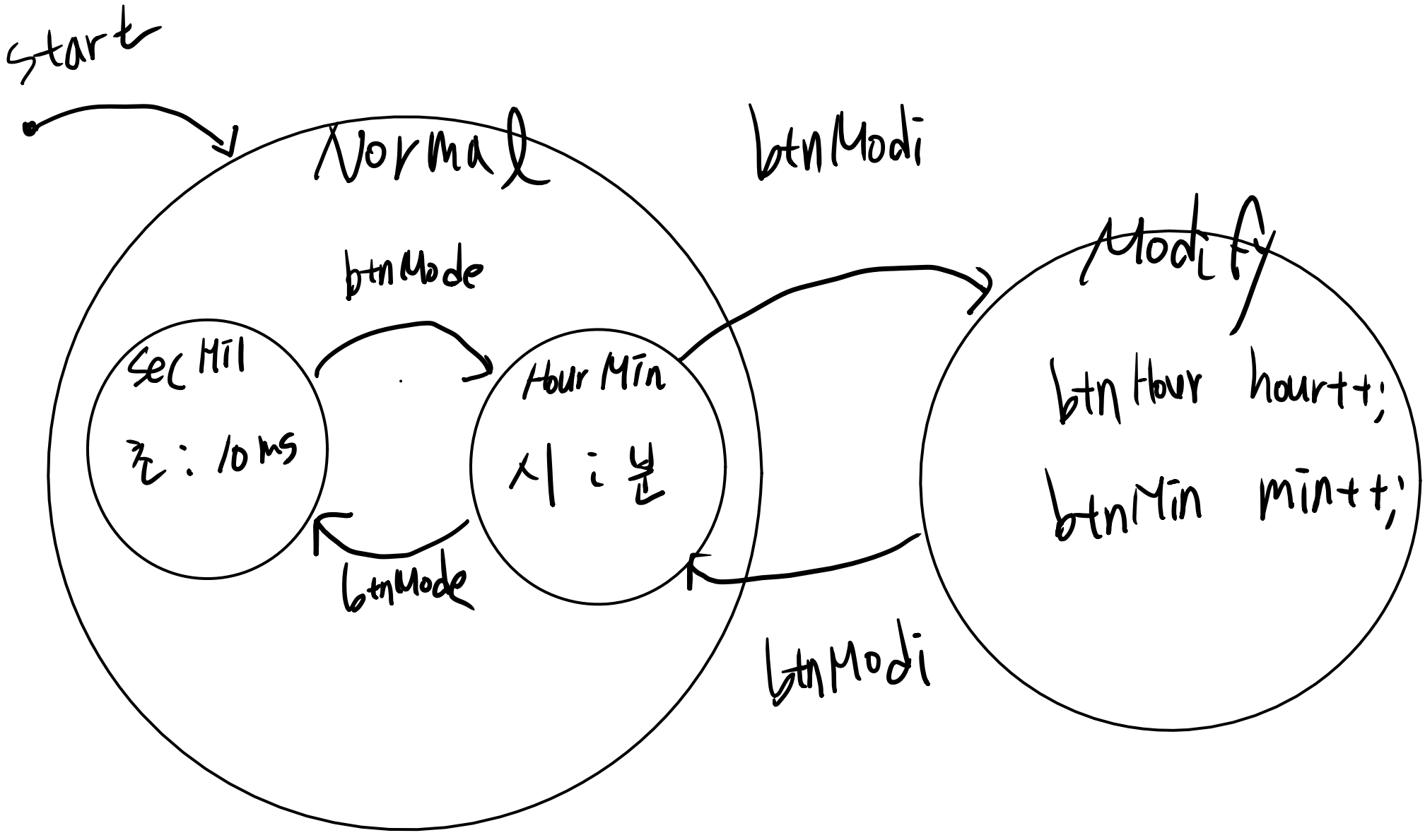

Start
Stop
btnRunStop
btnRunStop
Run
btnReset
리셋
Reset



시계 만들기




start
btnMode
SecMil
초 : 10ms
HourMin
시 : 분
btnMode


start
Normal
btnMode
SecMil
초 : 10ms
HourMin
시 : 분
btnMode
btnModi
Modify
btnHour hour++;
btnMin min++;
btnModi