

First, I call

HAL_TIM_OC_Stop_IT(&htim20, TIM_CHANNEL_1);

__HAL_TIM_SetCompare

__HAL_TIM_SetCounter

Debug window showing code execution at line 431. The code calls `HAL_TIM_OC_Start_IT(&htim20, TIM_CHANNEL_1);`. The Watch window shows register values, with `CCMR1` set to 56.

Expression	Value	Location	Type
SR	196637	0x40015010	uint32_t volatile
EGR	0	0x40015014	uint32_t volatile
CCMR1	56	0x40015018	uint32_t volatile
CCMR2	0	0x4001501C	uint32_t volatile
CCER	0	0x40015020	uint32_t volatile
CNT	3	0x40015024	uint32_t volatile
PSC	149	0x40015028	uint32_t volatile
ARR	10000	0x4001502C	uint32_t volatile
RCR	0	0x40015030	uint32_t volatile
CCR1	10000	0x40015034	uint32_t volatile
CCR2	0	0x40015038	uint32_t volatile
CCR3	0	0x4001503C	uint32_t volatile
CCR4	0	0x40015040	uint32_t volatile
BDTR	33562624	0x40015044	uint32_t volatile
CCR5	0	0x40015048	uint32_t volatile
CCR6	0	0x4001504C	uint32_t volatile
CCMR3	0	0x40015050	uint32_t volatile
DTR2	0	0x40015054	uint32_t volatile
ECR	0	0x40015058	uint32_t volatile

Debug window showing code execution at line 431. The code calls `HAL_TIM_OC_Start_IT(&htim20, TIM_CHANNEL_1);`. The Watch window shows register values, with `CCMR1` set to 56 and `ARR` set to 25000.

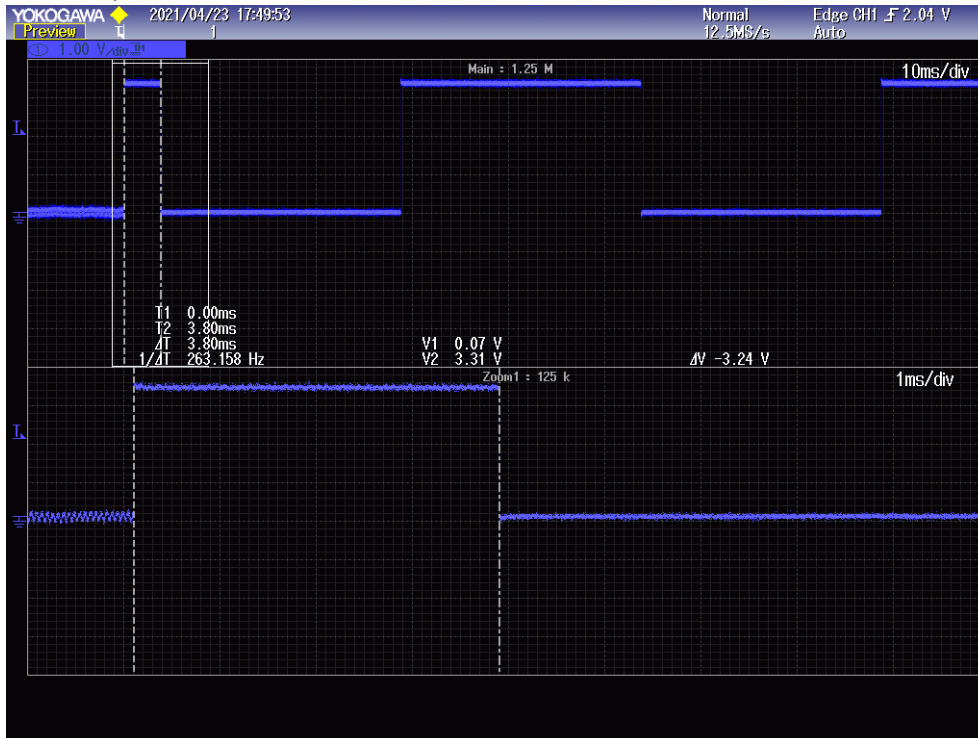
Expression	Value	Location	Type
SR	196637	0x40015010	uint32_t volatile
EGR	0	0x40015014	uint32_t volatile
CCMR1	56	0x40015018	uint32_t volatile
CCMR2	0	0x4001501C	uint32_t volatile
CCER	0	0x40015020	uint32_t volatile
CNT	0	0x40015024	uint32_t volatile
PSC	149	0x40015028	uint32_t volatile
ARR	25000	0x4001502C	uint32_t volatile
RCR	0	0x40015030	uint32_t volatile
CCR1	25000	0x40015034	uint32_t volatile
CCR2	0	0x40015038	uint32_t volatile
CCR3	0	0x4001503C	uint32_t volatile
CCR4	0	0x40015040	uint32_t volatile
BDTR	33562624	0x40015044	uint32_t volatile
CCR5	0	0x40015048	uint32_t volatile
CCR6	0	0x4001504C	uint32_t volatile
CCMR3	0	0x40015050	uint32_t volatile
DTR2	0	0x40015054	uint32_t volatile
ECR	0	0x40015058	uint32_t volatile

Timer value is correct, 25000 which is 25ms, then the I call HAL_TIM_OC_Start_IT

The screenshot shows a debugger interface with a file explorer on the left, a code editor in the center, and a watch window at the bottom. The code editor displays C code for a timer setup, with a red dot indicating the execution point at line 431: `HAL_TIM_OC_Start_IT(&htim20, TIM_CHANNEL_1);`. The watch window shows the value of the `CNT` register as 7184.

Expression	Value	Location	Type
SR	196639	0x40015010	uint32_t volatile
EGR	0	0x40015014	uint32_t volatile
CCMR1	56	0x40015018	uint32_t volatile
CCMR2	0	0x4001501C	uint32_t volatile
CCER	1	0x40015020	uint32_t volatile
CNT	7184	0x40015024	uint32_t volatile
PSC	149	0x40015028	uint32_t volatile
ARR	25000	0x4001502C	uint32_t volatile
RCR	0	0x40015030	uint32_t volatile
CCR1	25000	0x40015034	uint32_t volatile
CCR2	0	0x40015038	uint32_t volatile
CCR3	0	0x4001503C	uint32_t volatile
CCR4	0	0x40015040	uint32_t volatile
BDTR	33595392	0x40015044	uint32_t volatile
CCR5	0	0x40015048	uint32_t volatile
CCR6	0	0x4001504C	uint32_t volatile
CCMR3	0	0x40015050	uint32_t volatile
DTR2	0	0x40015054	uint32_t volatile
ECR	0	0x40015058	uint32_t volatile

The first pulse is too slow (3.8ms)



The second is correct (25ms)

