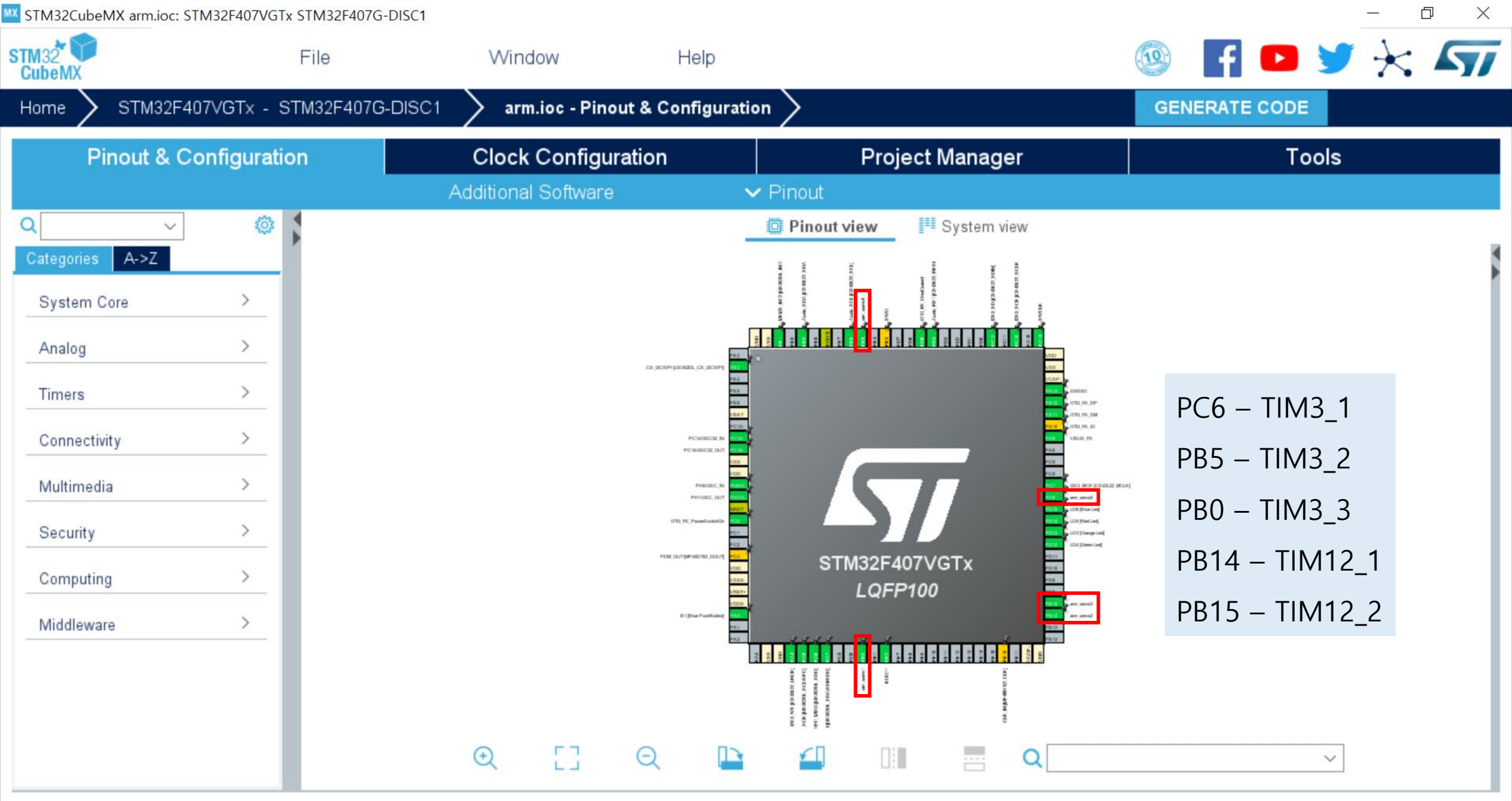
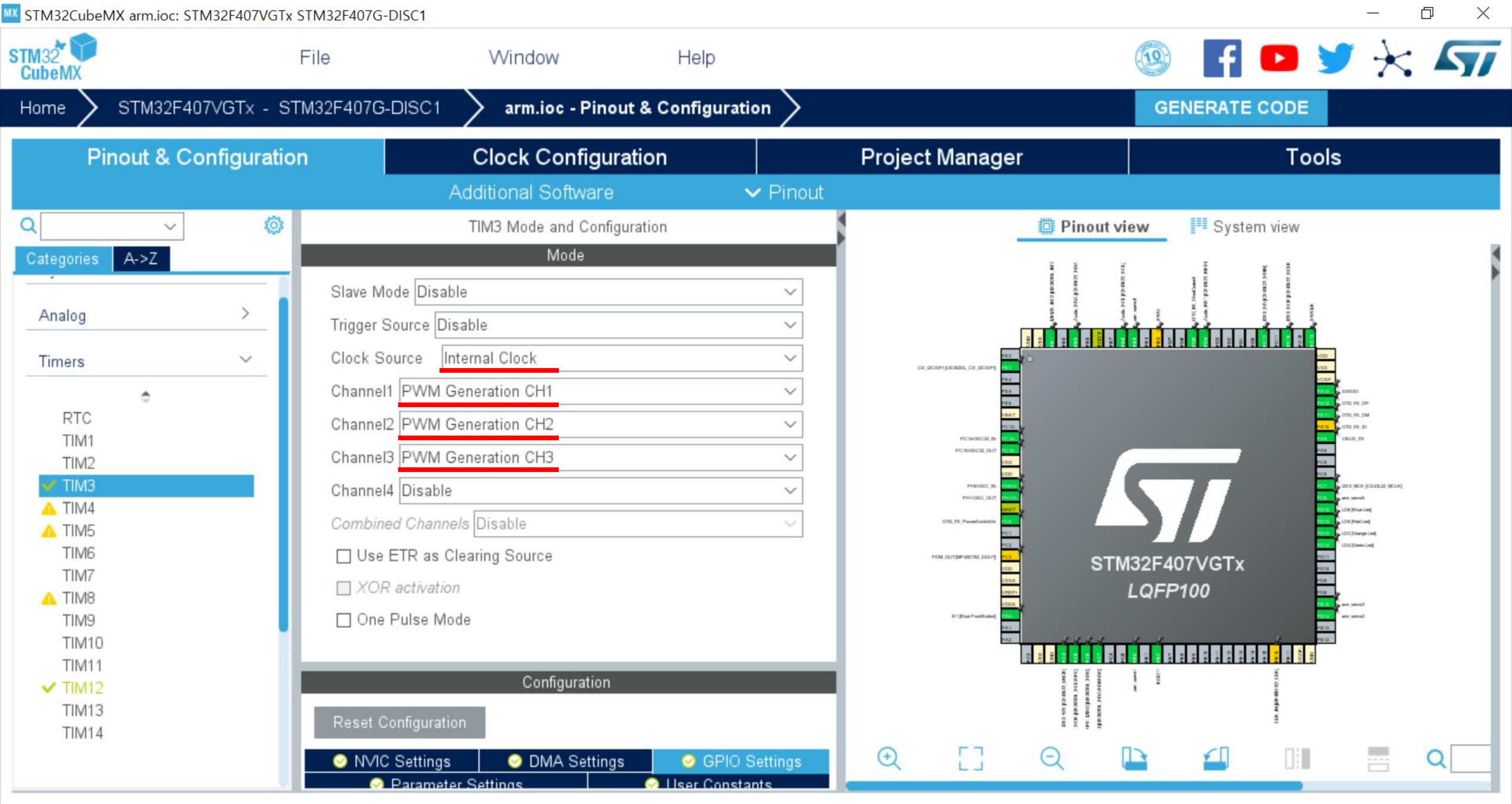
Robot Arm

CubeMX - Code generation manual

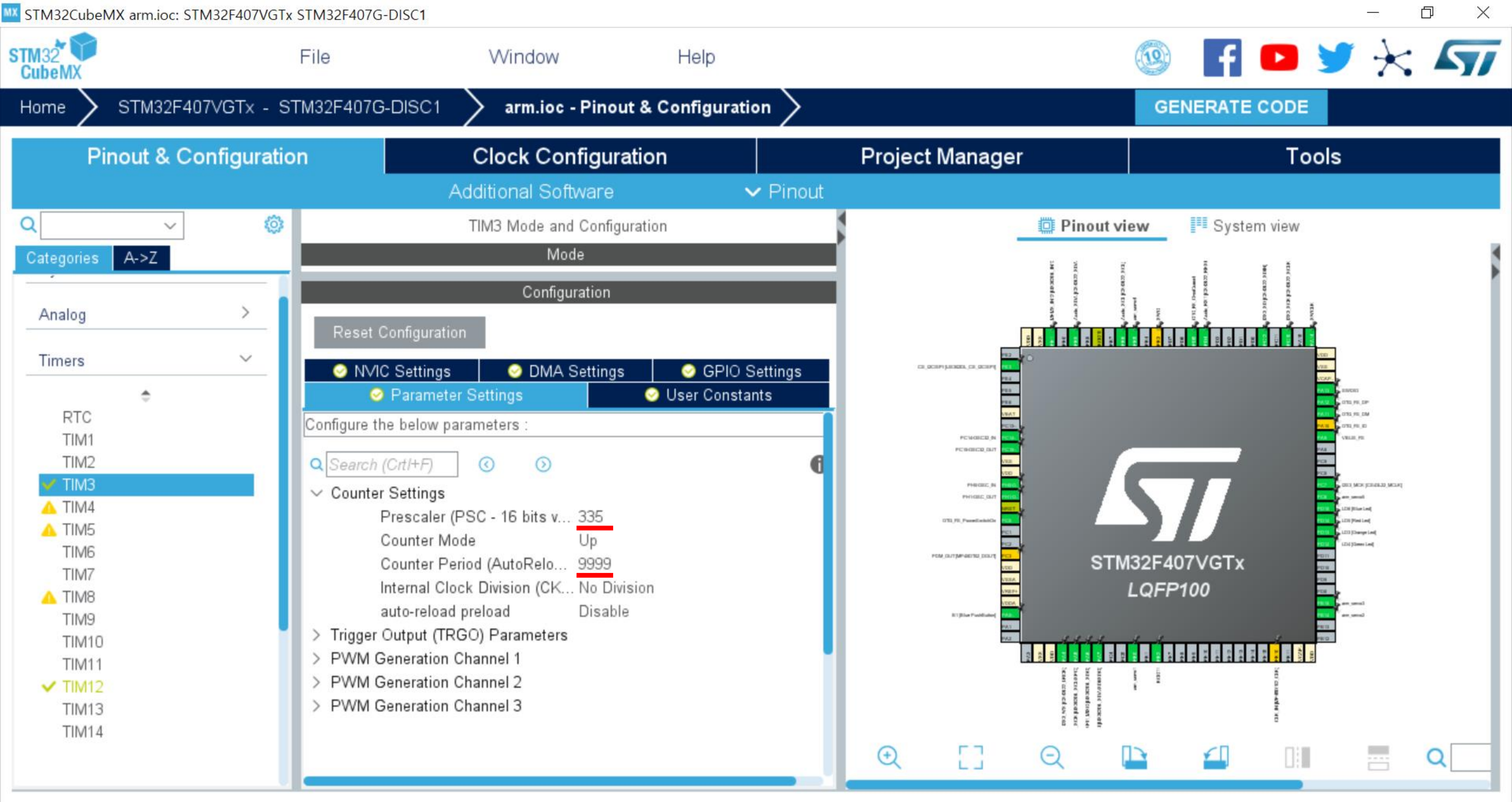
1. Pin settings



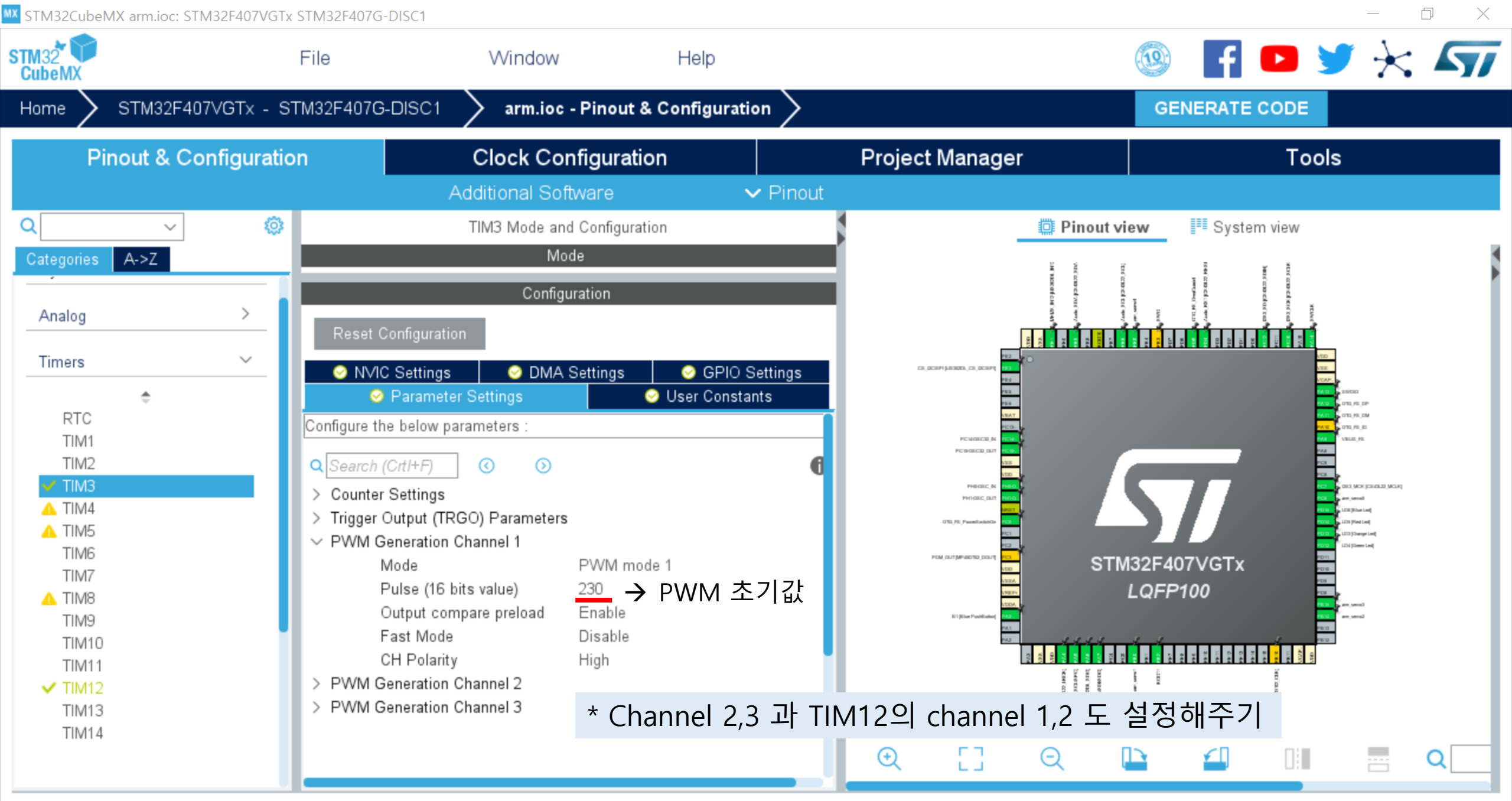
2. Timer mode settings



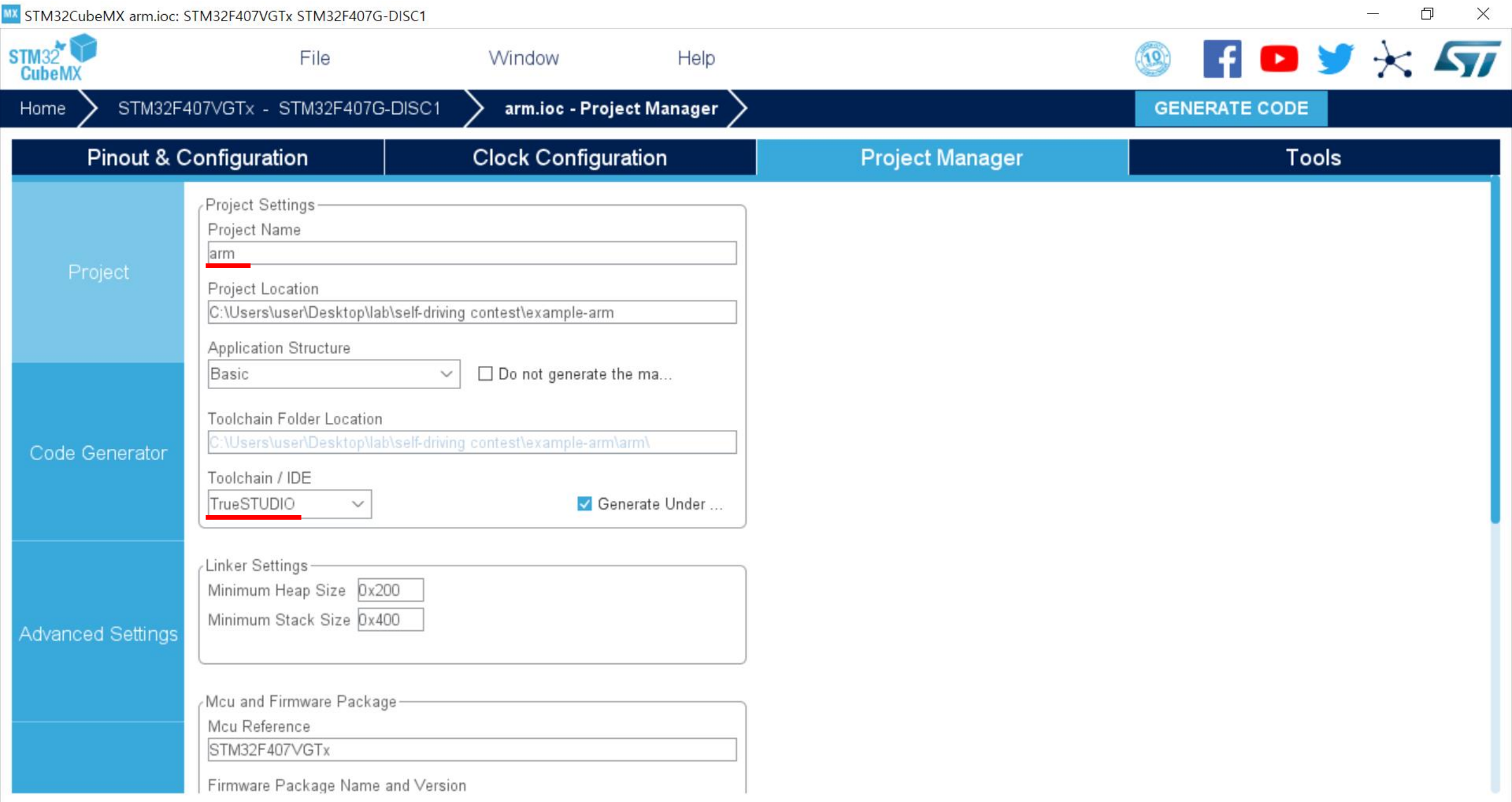
3. Timer parameter settings – Counter settings



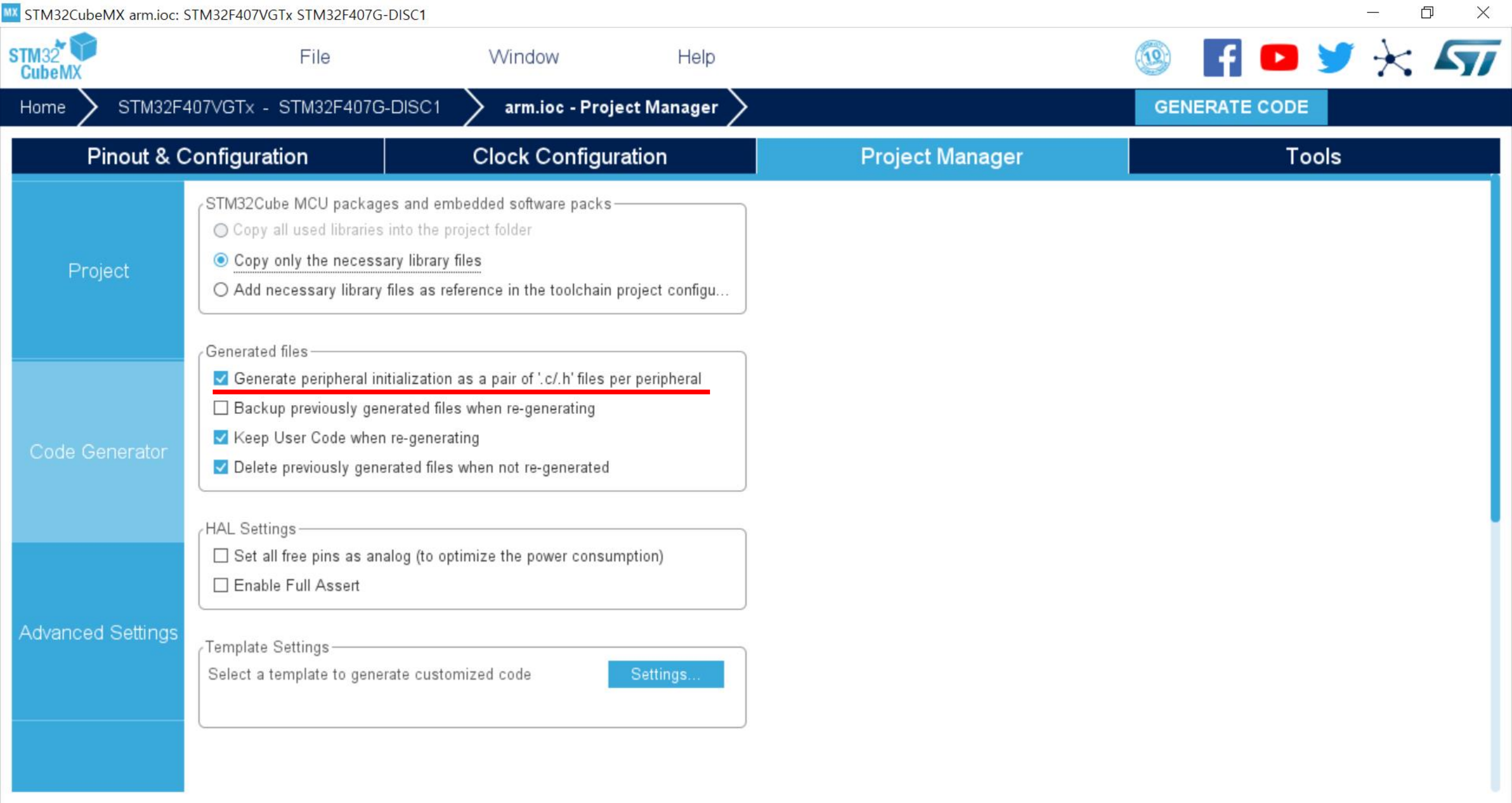
3. Timer parameter settings – PWM generation channel settings



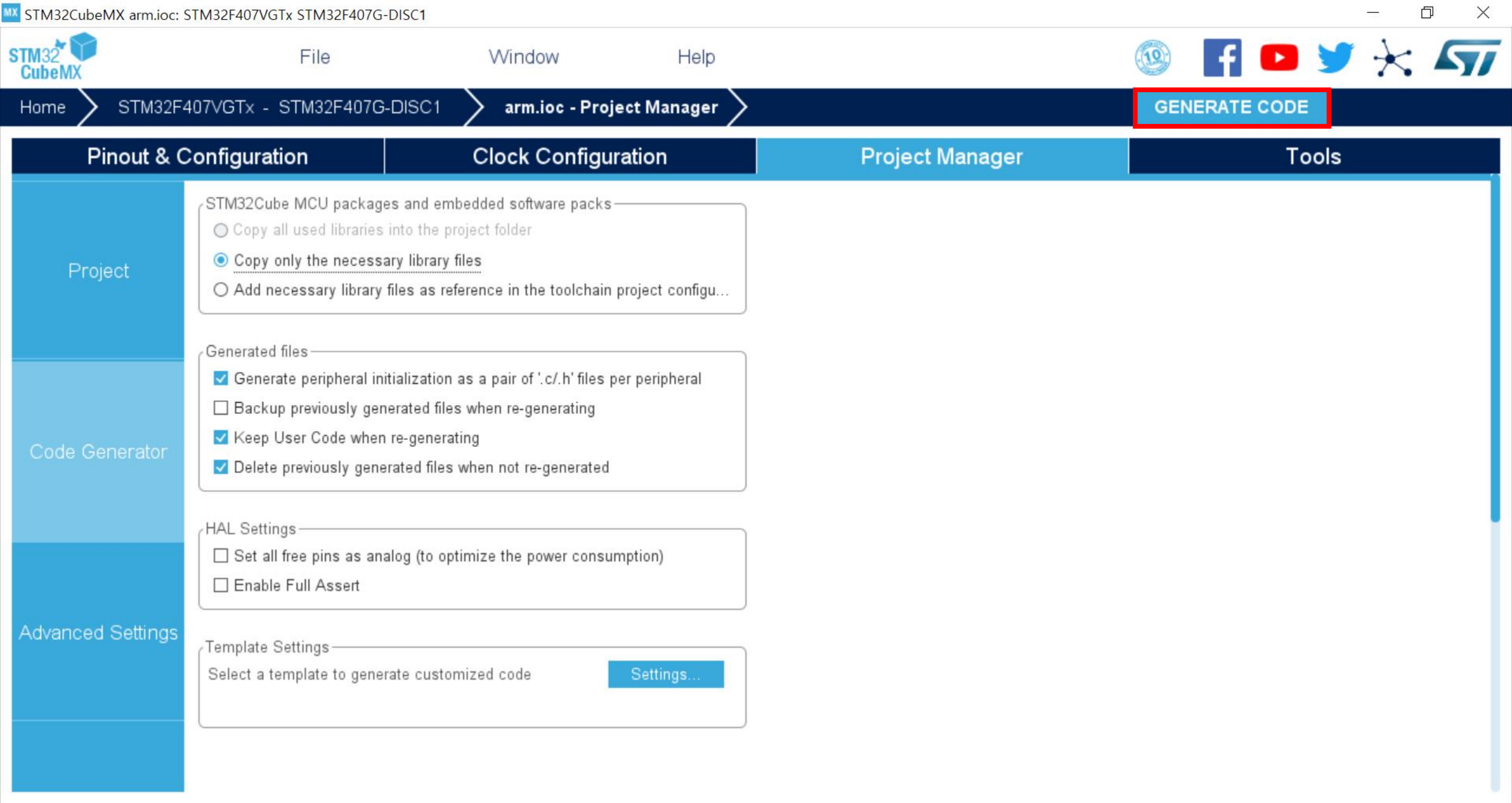
4. Timer parameter settings – PWM generation channel settings



5. Project manager - Code generator



6. Generate code



Robot Arm

TrueSTUDIO - manual

- **PWM**

(timer number, channel number)

```
HAL_TIM_PWM_Start(&htim3,TIM_CHANNEL_1);
HAL_TIM_PWM_Start(&htim3,TIM_CHANNEL_2);
HAL_TIM_PWM_Start(&htim3,TIM_CHANNEL_3);
HAL_TIM_PWM_Start(&htim12,TIM_CHANNEL_1);
HAL_TIM_PWM_Start(&htim12,TIM_CHANNEL_2);
```

→ PWM을 시작을 알리는 함수 구문

```
TIM3->CCR1=MOTOR_PWM[0];
TIM3->CCR2=MOTOR_PWM[1];
TIM3->CCR3=MOTOR_PWM[2];
TIM12->CCR1=MOTOR_PWM[3];
TIM12->CCR2=MOTOR_PWM[4];
```

→ CCR값을 변화시켜 servo motor의 각도를 변경