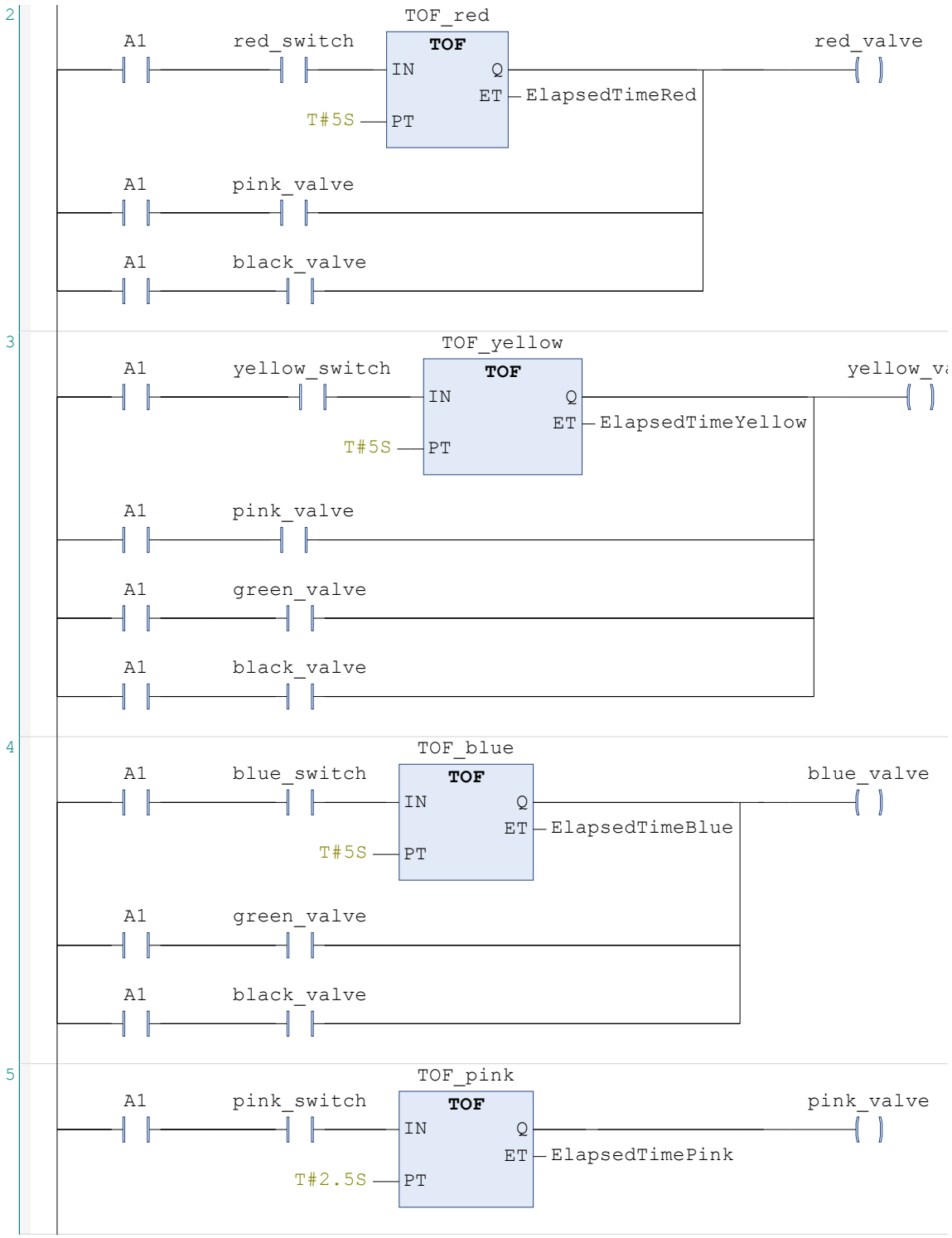
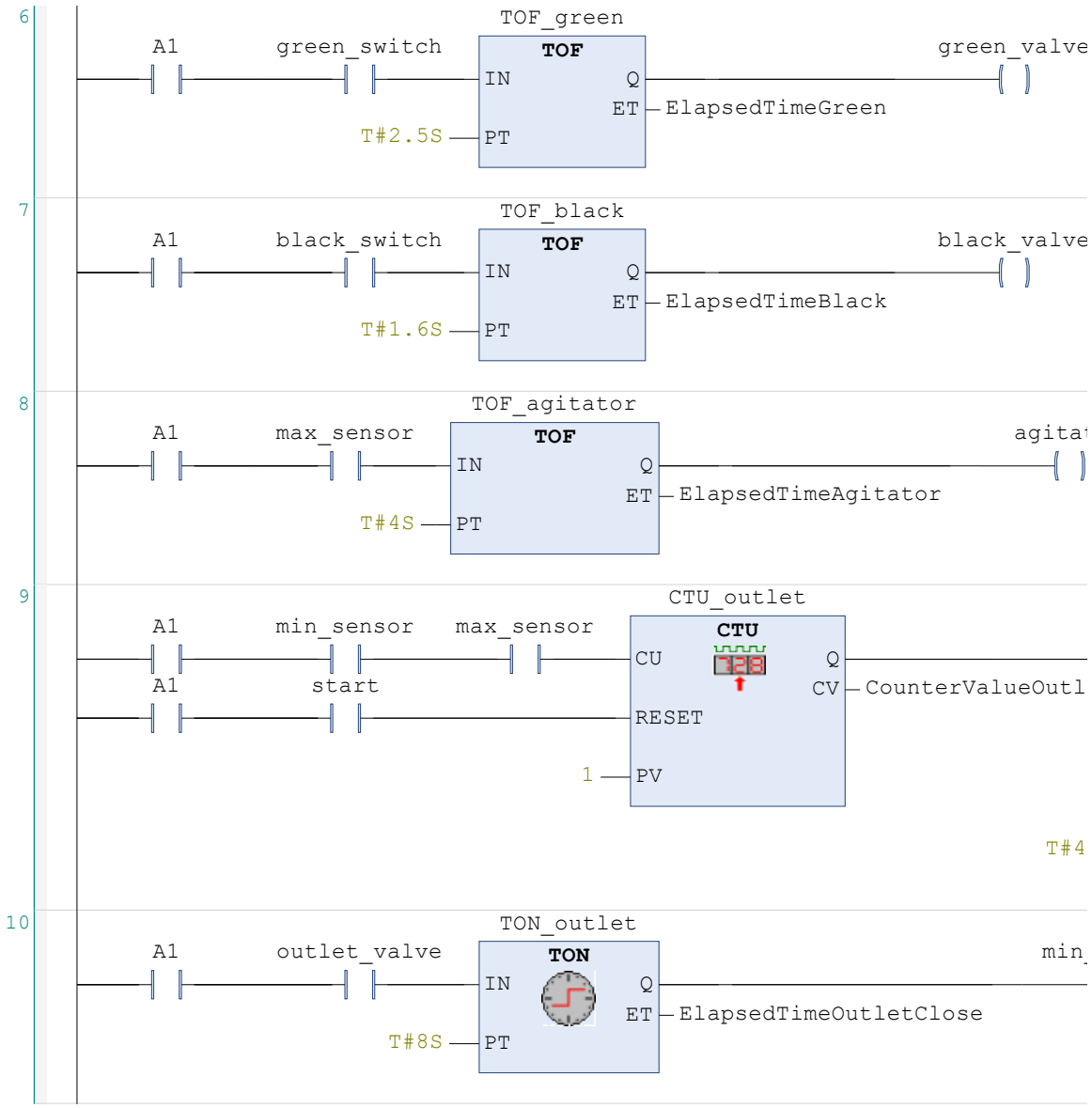
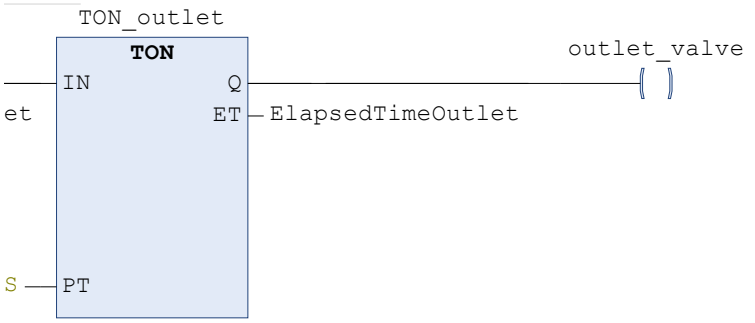
```
PROGRAM PLC_PRG
VAR
    red_switch : BOOL ;
    red_valve : BOOL ;
    yellow_switch : BOOL ;
    yellow_valve : BOOL ;
    TOF_yellow : TOF ;
    TOF_red : TOF ;
    blue_switch : BOOL ;
    TOF_blue : TOF ;
    blue_valve : BOOL ;
    ElapsedTimeRed : TIME ;
    ElapsedTimeYellow : TIME ;
    ElapsedTimeBlue : TIME ;
    pink_switch : BOOL ;
    TOF_pink : TOF ;
    ElapsedTimePink : TIME ;
    green_switch : BOOL ;
    TOF_green : TOF ;
    ElapsedTimeGreen : TIME ;
    pink_valve : BOOL ;
    green_valve : BOOL ;
    black_switch : BOOL ;
    TOF_black : TOF ;
    ElapsedTimeBlack : TIME ;
    black_valve : BOOL ;
    TOF_agitator : TOF ;
    agitator : BOOL ;
    ElapsedTimeAgitator : TIME ;
    min_sensor : BOOL ;
    max_sensor : BOOL ;
    TON_outlet : TON ;
    outlet_valve : BOOL ;
    ElapsedTimeOutlet : TIME ;
    CTU_outlet : CTU ;
    start : BOOL ;
    CounterValueOutlet : WORD ;
    ElapsedTimeOutletClose : TIME ;
    stop : BOOL ;
    A1 : BOOL ;
END_VAR
```


2
TOF_red
A1
red_switch
TOF
IN
Q
ET
ElapsedTimeRed
T#5S
PT
red_valve
A1
pink_valve
A1
black_valve
3
TOF_yellow
A1
yellow_switch
TOF
IN
Q
ET
ElapsedTimeYellow
T#5S
PT
yellow_v
A1
pink_valve
A1
green_valve
A1
black_valve
4
TOF_blue
A1
blue_switch
TOF
IN
Q
ET
ElapsedTimeBlue
T#5S
PT
blue_valve
A1
green_valve
A1
black_valve
5
TOF_pink
A1
pink_switch
TOF
IN
Q
ET
ElapsedTimePink
T#2.5S
PT
pink_valve

alve


6
TOF_green
A1
green_switch
TOF
IN
Q
ET
ElapsedTimeGreen
green_valve
T#2.5S
PT
7
TOF_black
A1
black_switch
TOF
IN
Q
ET
ElapsedTimeBlack
black_valve
T#1.6S
PT
8
TOF_agitator
A1
max_sensor
TOF
IN
Q
ET
ElapsedTimeAgitator
T#4S
PT
9
CTU_outlet
A1
min_sensor
max_sensor
CTU
CU
Q
A1
start
CV
CounterValueOutl
RESET
1
PV
T#4
10
TON_outlet
A1
outlet_valve
TON
IN
Q
ET
ElapsedTimeOutletClose
T#8S
PT

tor


TON_outlet
TON
IN
Q
ET
PT
et
S
outlet_valve
ElapsedTimeOutlet

_sensor