

# PCB 교육 정리

Pspice Simulation

전자정보공학부 20203023 우상욱  
wu3643@gmail.com

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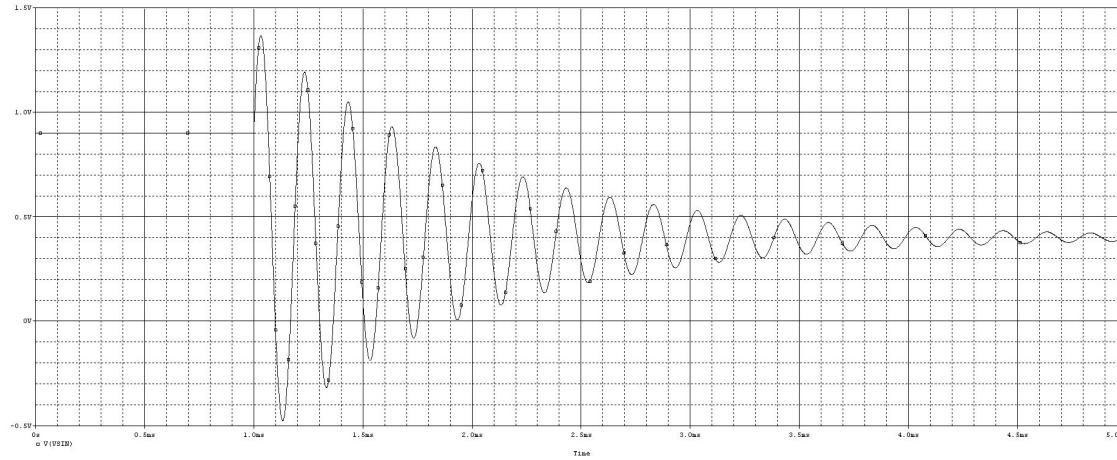
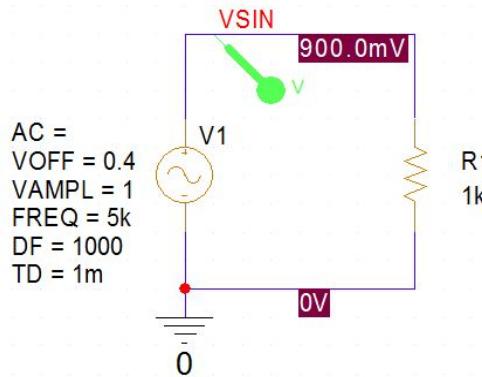
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- Voltage source
- Simulation
  - Bias point
  - DC sweep
  - parametric sweep
  - AC sweep
  - Digital signal simulation
  - Various tasks

# Voltage source

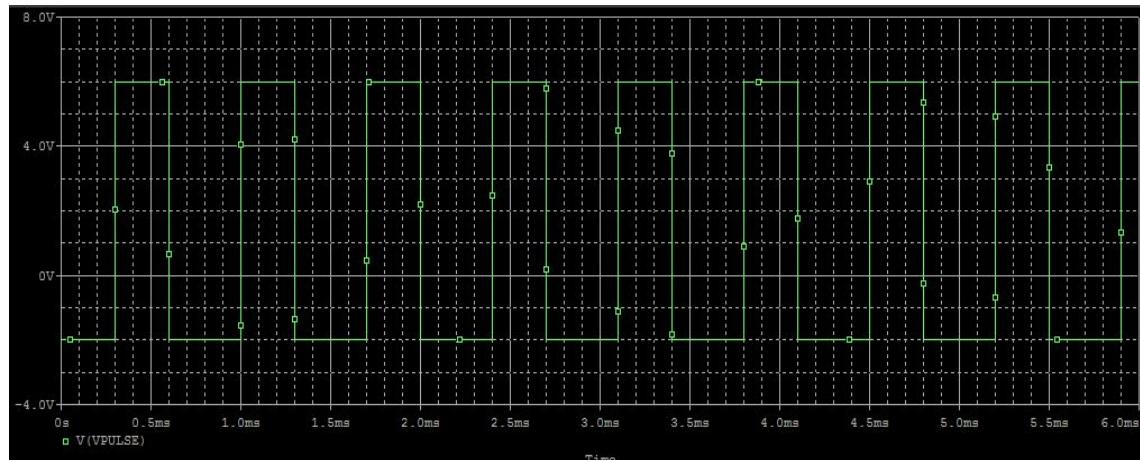
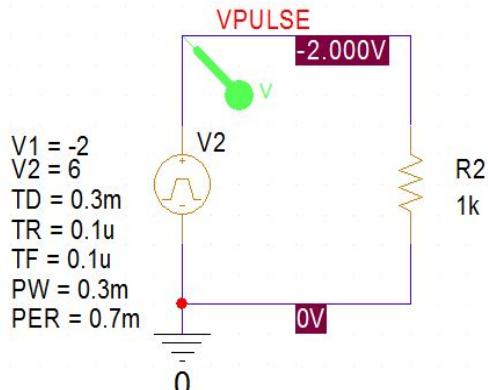
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VSIN



# Voltage source

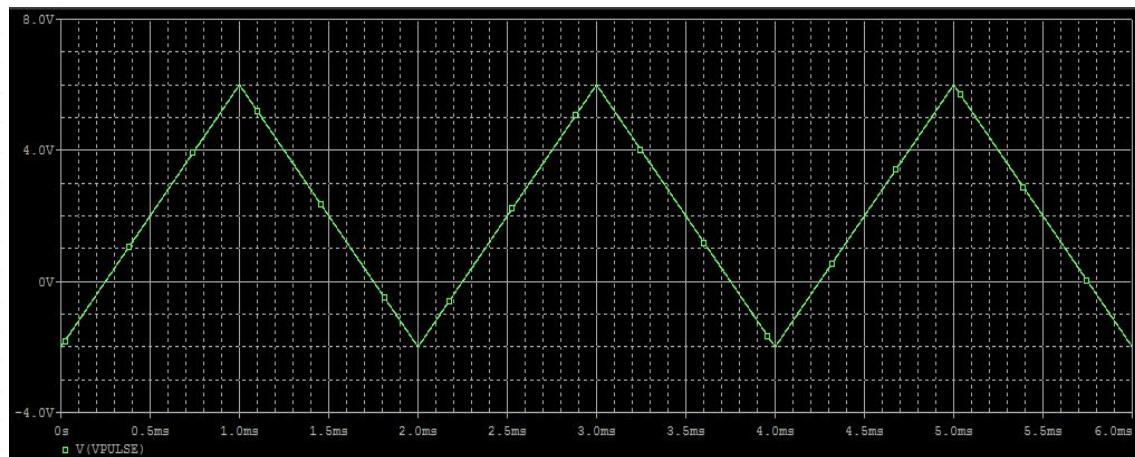
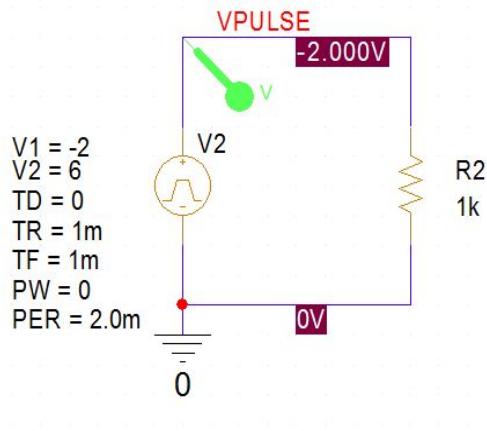
VPULSE



# Voltage source

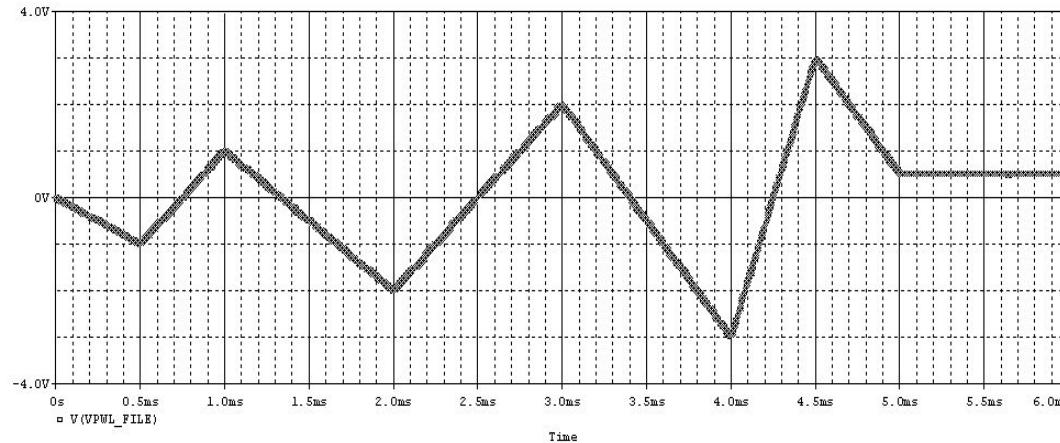
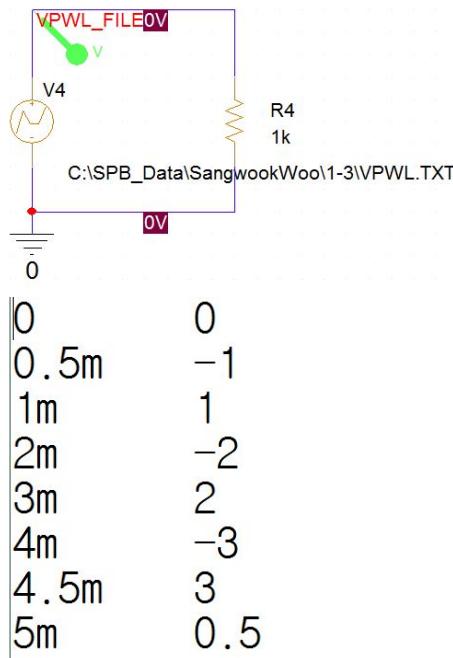
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삼각파



# Voltage source

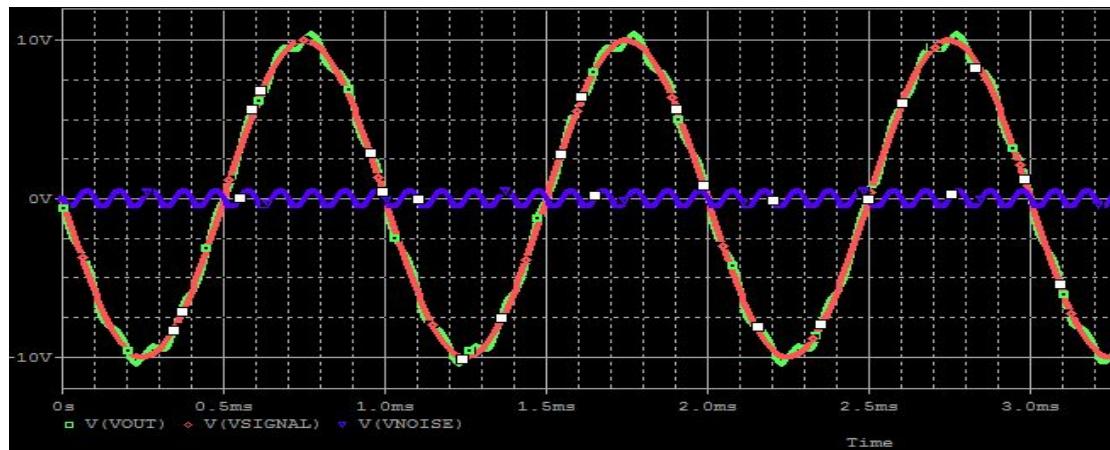
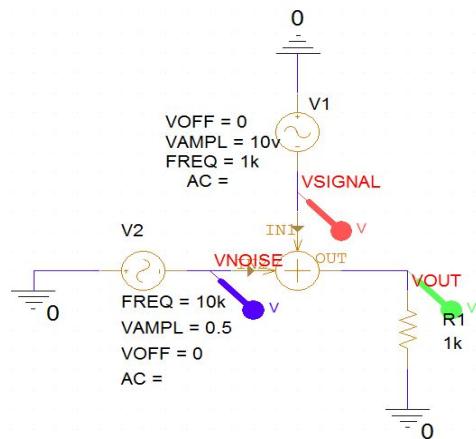
삼각파



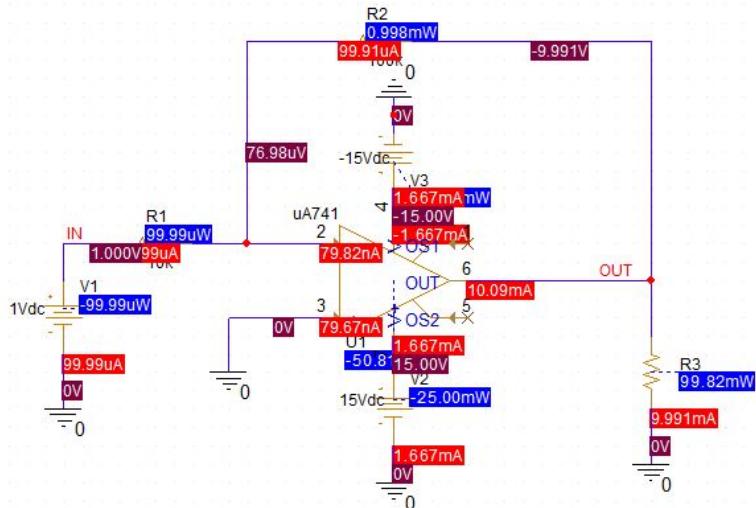
text file을 각 초에 맞게 값을 지정하여 활용한다.

# Voltage source

과제 1 : 신호 합성



# Bias point



\*\*\*\* SMALL-SIGNAL CHARACTERISTICS

$V(OUT)/V_V1 = -9.999E+00$

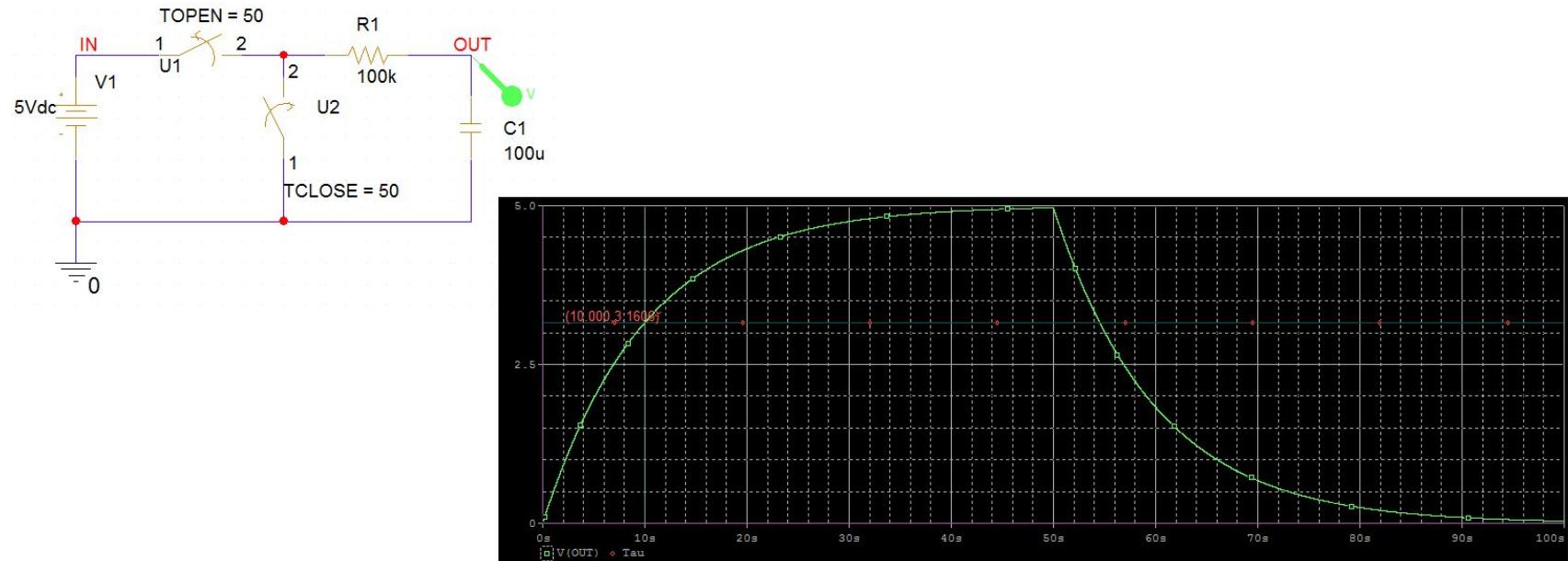
INPUT RESISTANCE AT  $V_V1 = 1.000E+34$

OUTPUT RESISTANCE AT  $V(OUT) = 8.451E-03$

JOB CONCLUDED

# Simulation

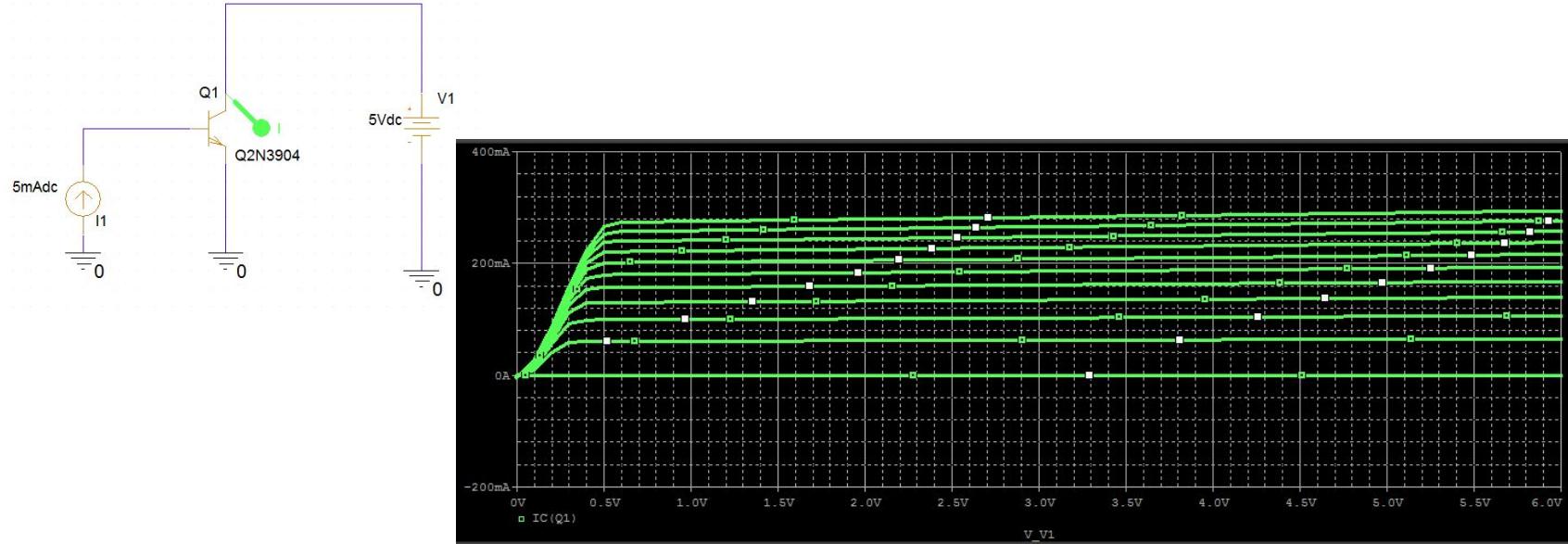
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# Simulation

parametric sweep

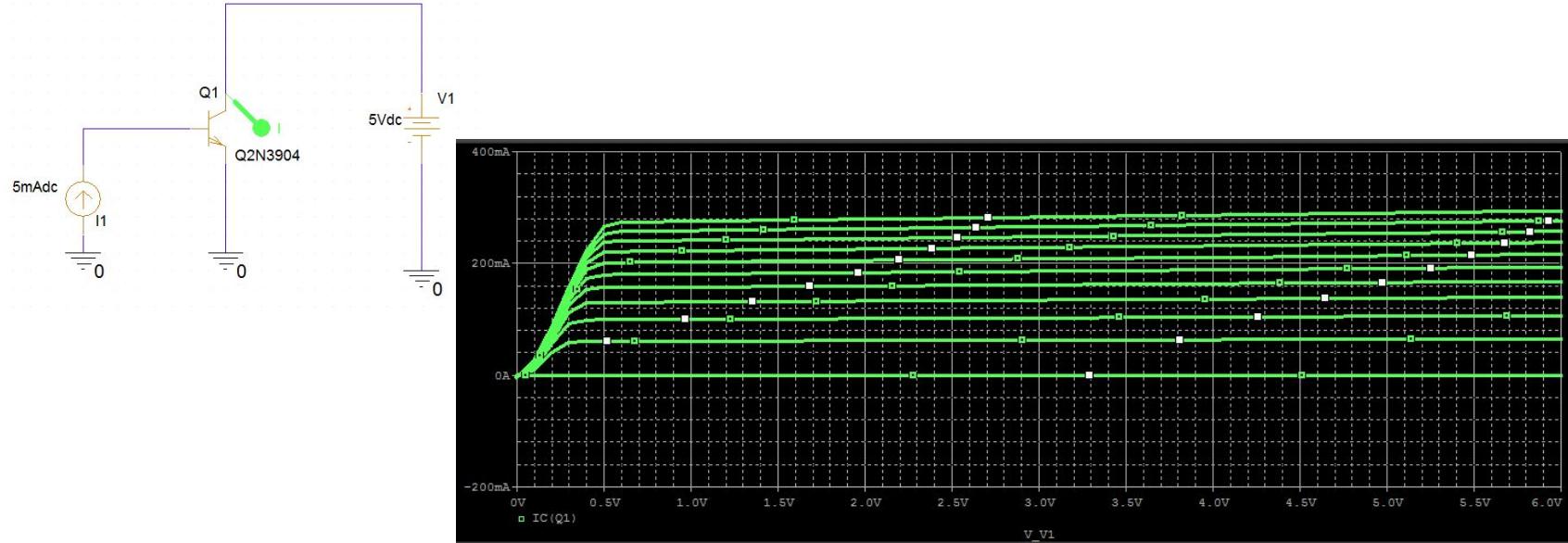
VI 특성 곡선 확인



# Simulation

DC sweep with secondary sweep

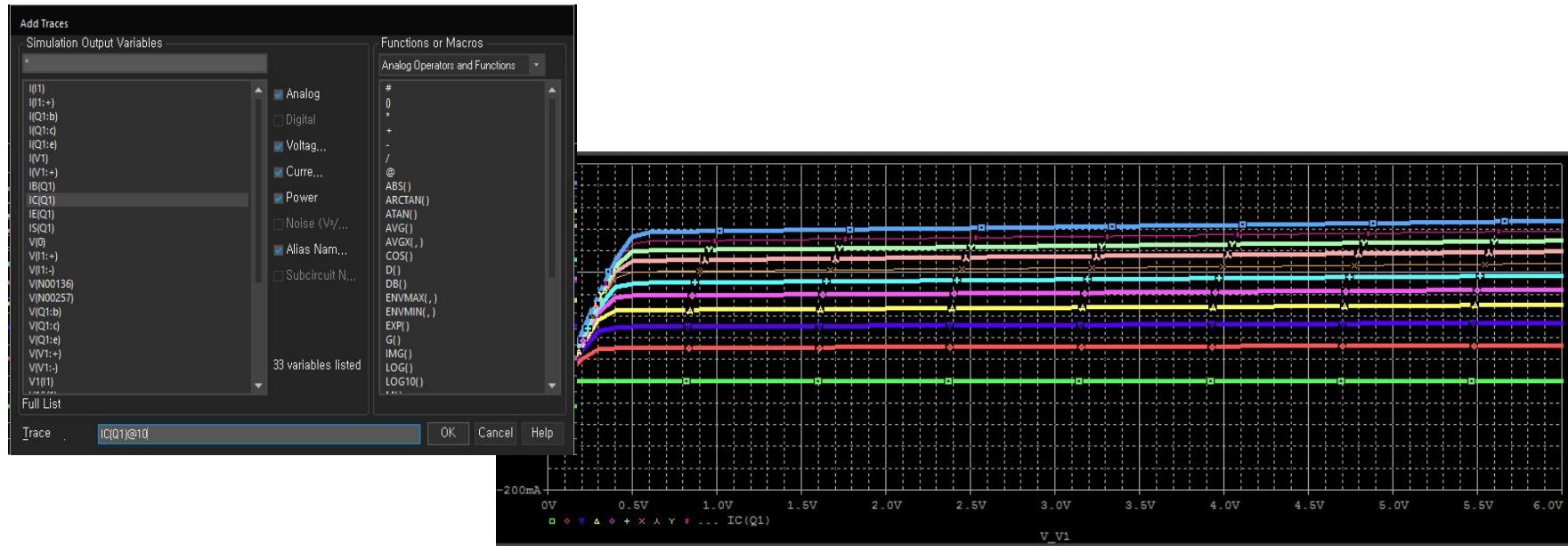
VI 특성 곡선 확인



# Simulation

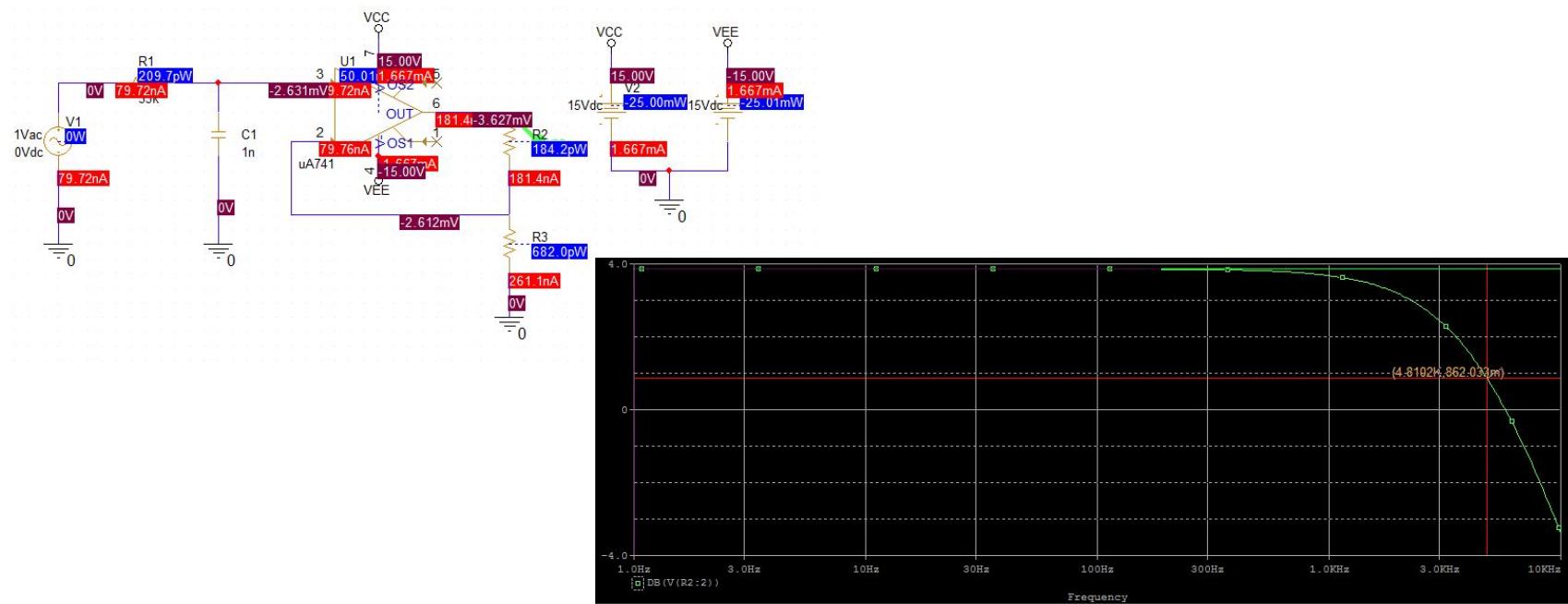
parametric sweep

VI 특성 곡선 확인



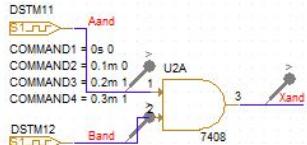
# Simulation

## AC SWEEP

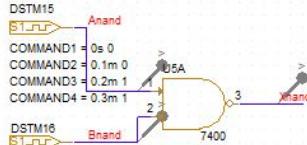


# Simulation

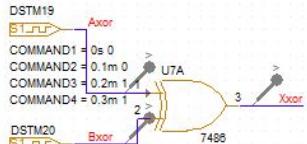
## Digital



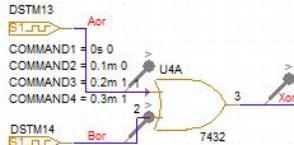
COMMAND1 = 0s 0  
COMMAND2 = 0.1m 1  
COMMAND3 = 0.2m 0  
COMMAND4 = 0.3m 1



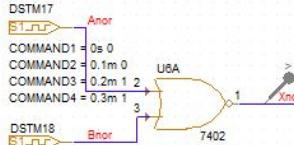
COMMAND1 = 0s 0  
COMMAND2 = 0.1m 1  
COMMAND3 = 0.2m 0  
COMMAND4 = 0.3m 1



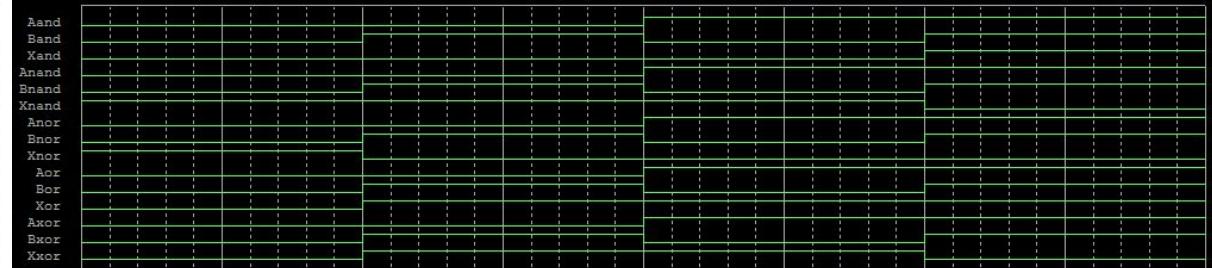
COMMAND1 = 0s 0  
COMMAND2 = 0.1m 1  
COMMAND3 = 0.2m 0  
COMMAND4 = 0.3m 1



COMMAND1 = 0s 0  
COMMAND2 = 0.1m 1  
COMMAND3 = 0.2m 0  
COMMAND4 = 0.3m 1



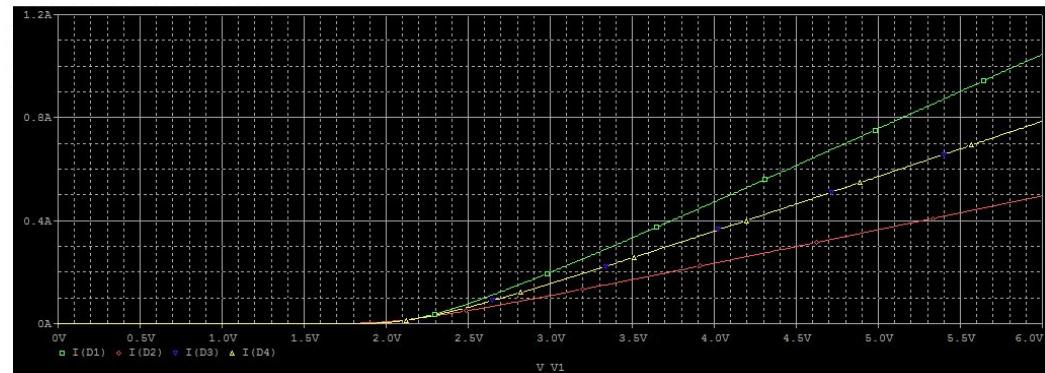
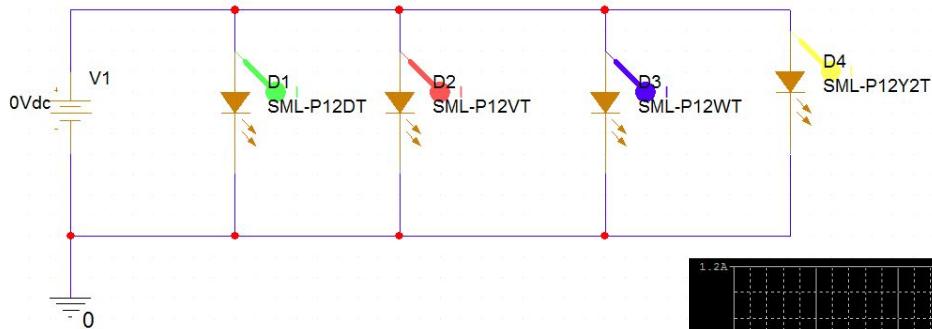
COMMAND1 = 0s 0  
COMMAND2 = 0.1m 1  
COMMAND3 = 0.2m 0  
COMMAND4 = 0.3m 1



# Simulation

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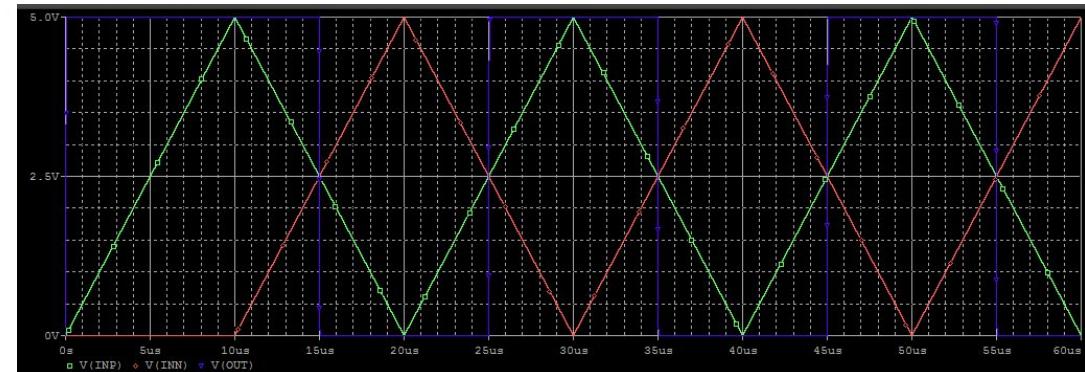
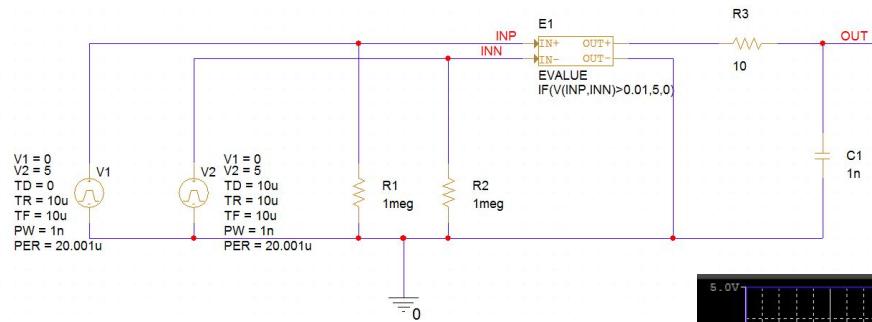
module import



# Simulation

module 만들기

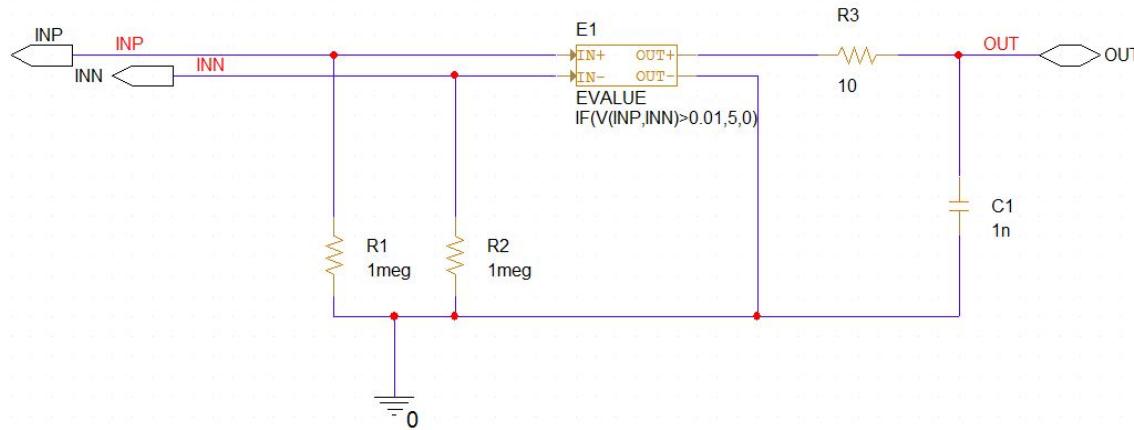
1. module simulation



# Simulation

module 만들기

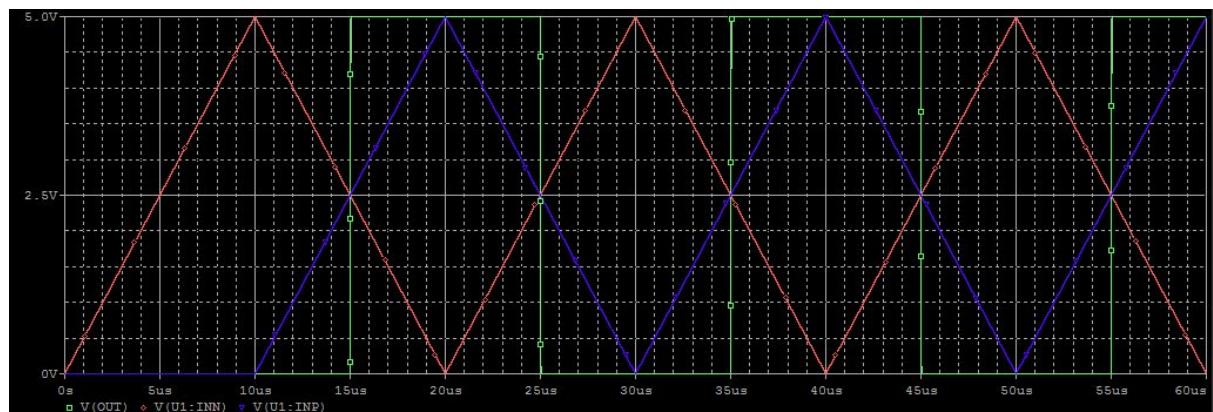
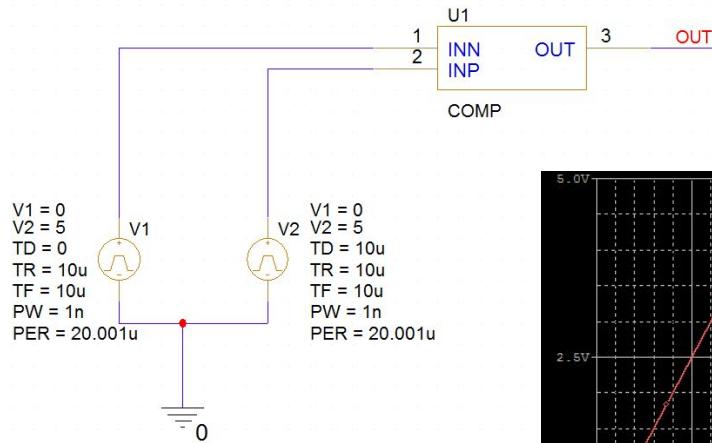
2. module port 설정



# Simulation

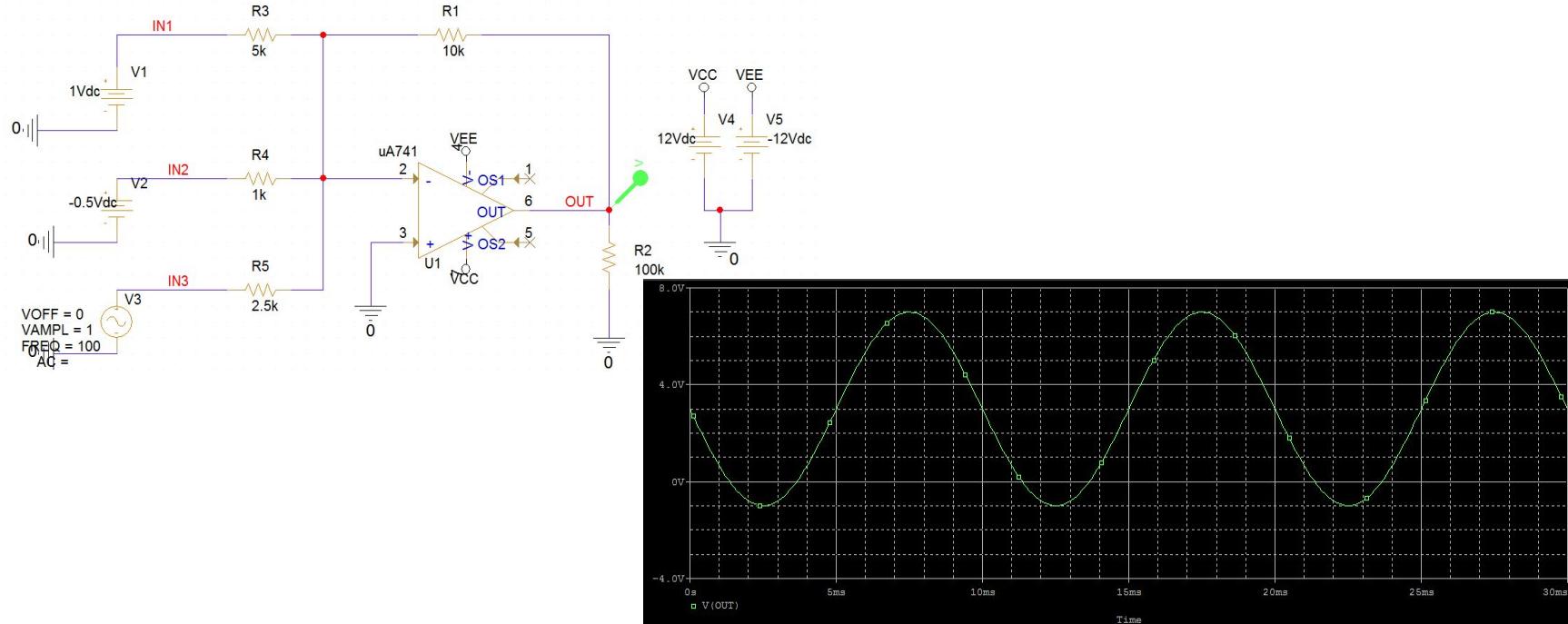
module 만들기

3. 만든 module simulation



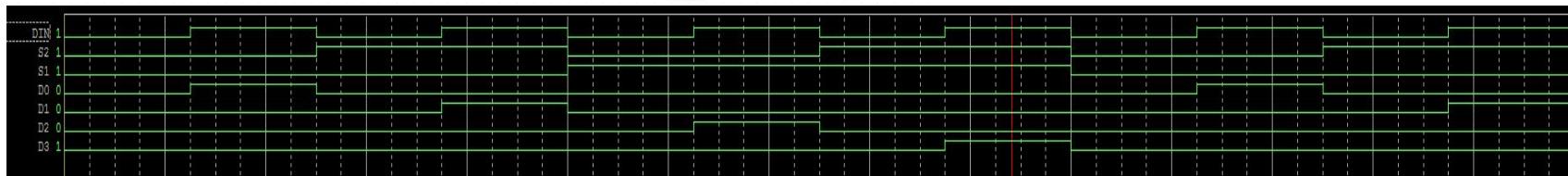
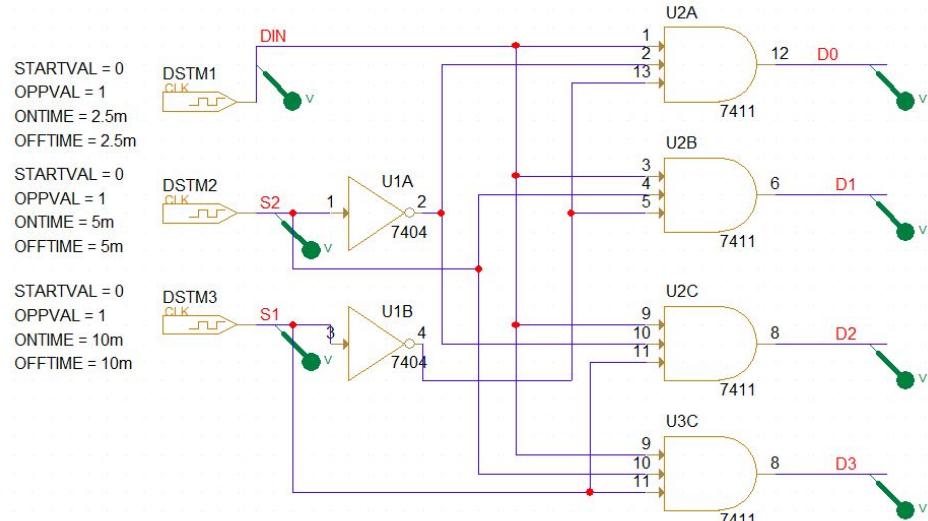
# Simulation

1번 과제



# Simulation

2번 과제



# Simulation

3번 과제

