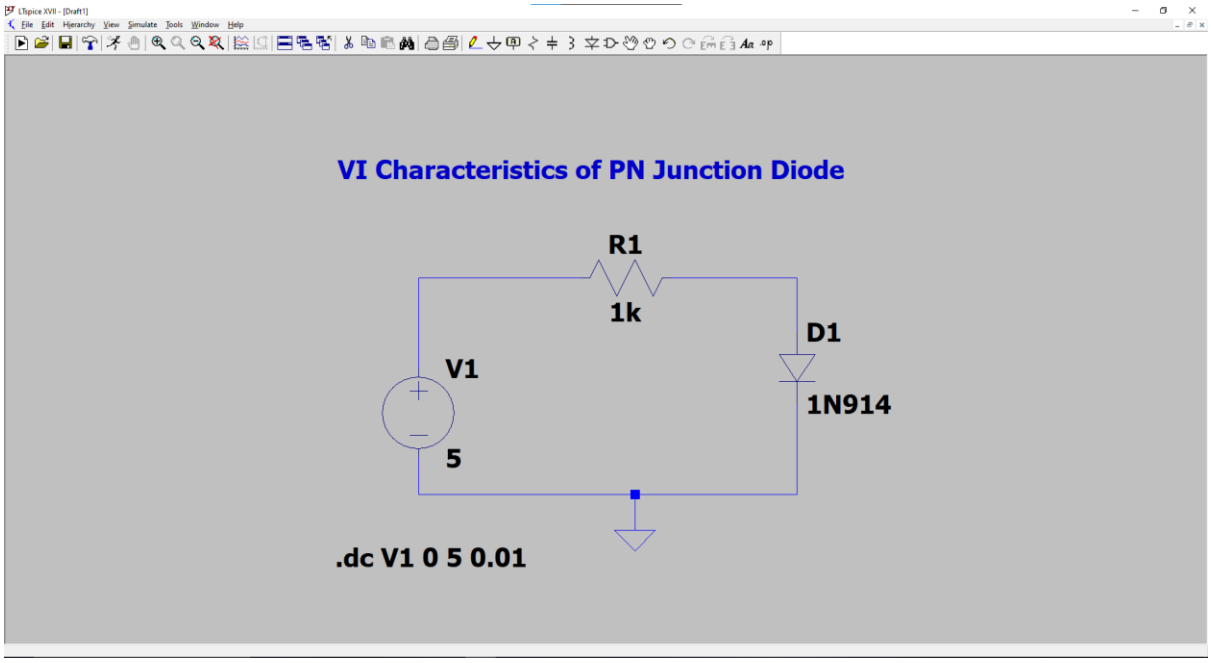
18ECC102J – ELECTRONIC DEVICES LABORATORY

CIRCUIT OUTPUTS

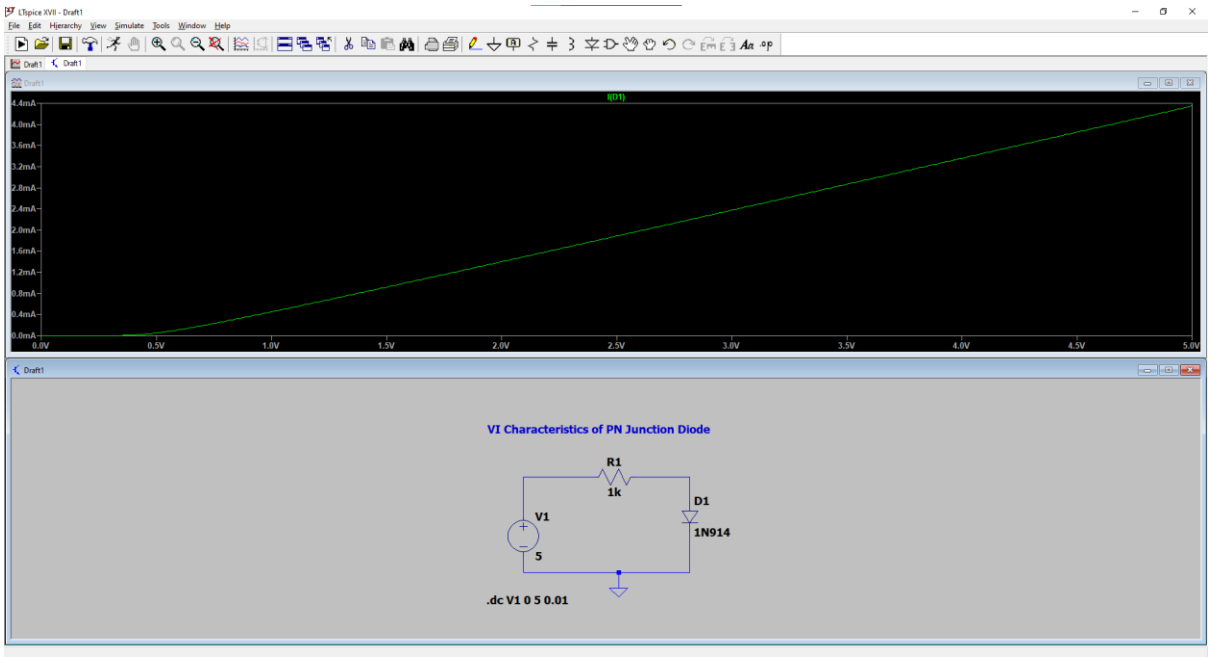
EXPERIMENT 1

VI CHARACTERISTICS OF PN JUNCTION DIODE

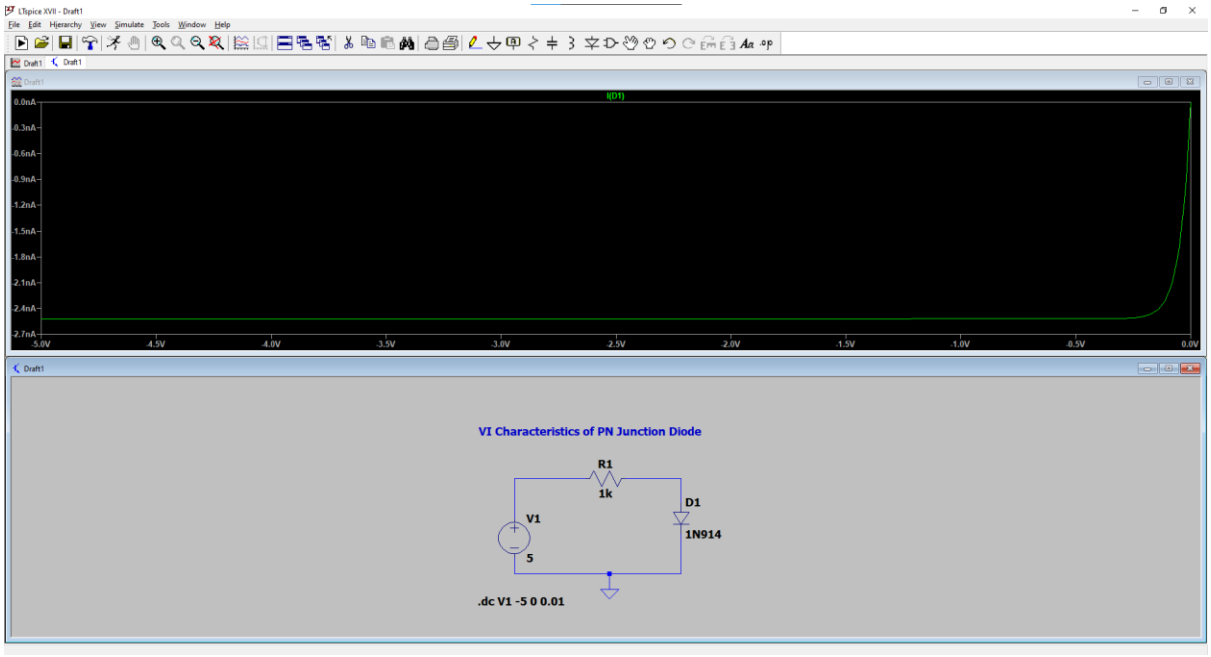
CIRCUIT DIAGRAM:



FORWARD BIAS CHARACTERISTICS:



REVERSE BIAS CHARACTERISTICS:



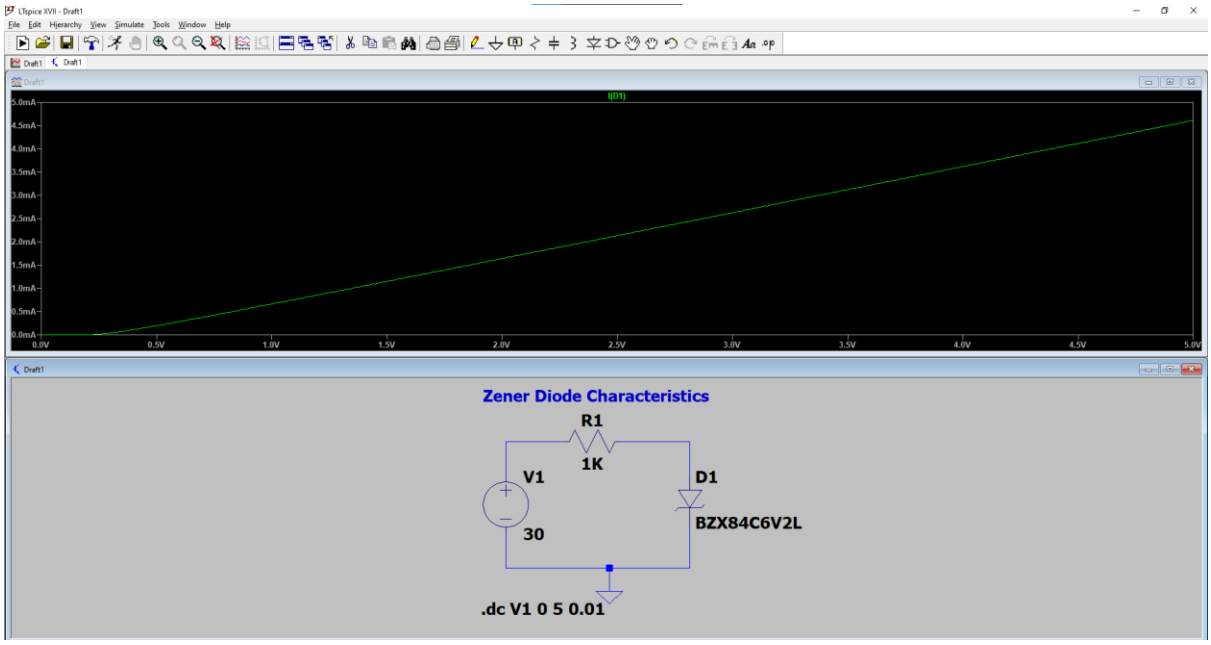
18ECC102J – ELECTRONIC DEVICES LABORATORY

CIRCUIT OUTPUTS

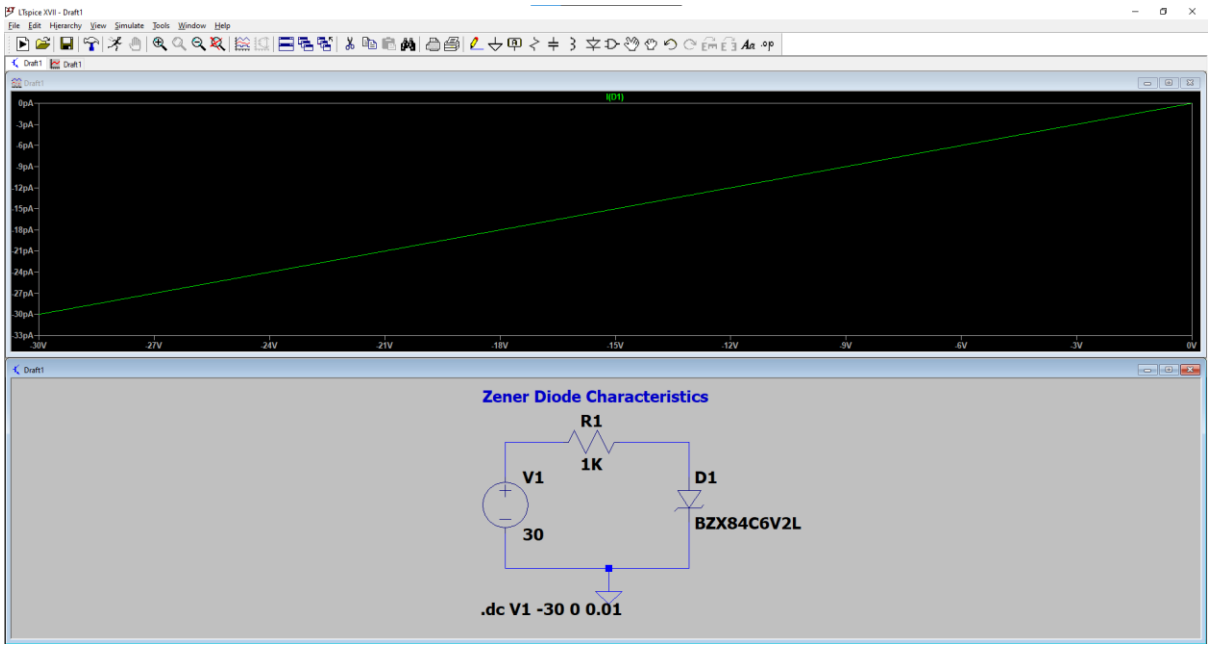
EXPERIMENT 2

ZENER DIODE CHARACTERISTICS

FORWARD BIAS CHARACTERISTICS:



REVERSE BIAS CHARACTERISTICS:



18ECC102J – ELECTRONIC DEVICES LABORATORY

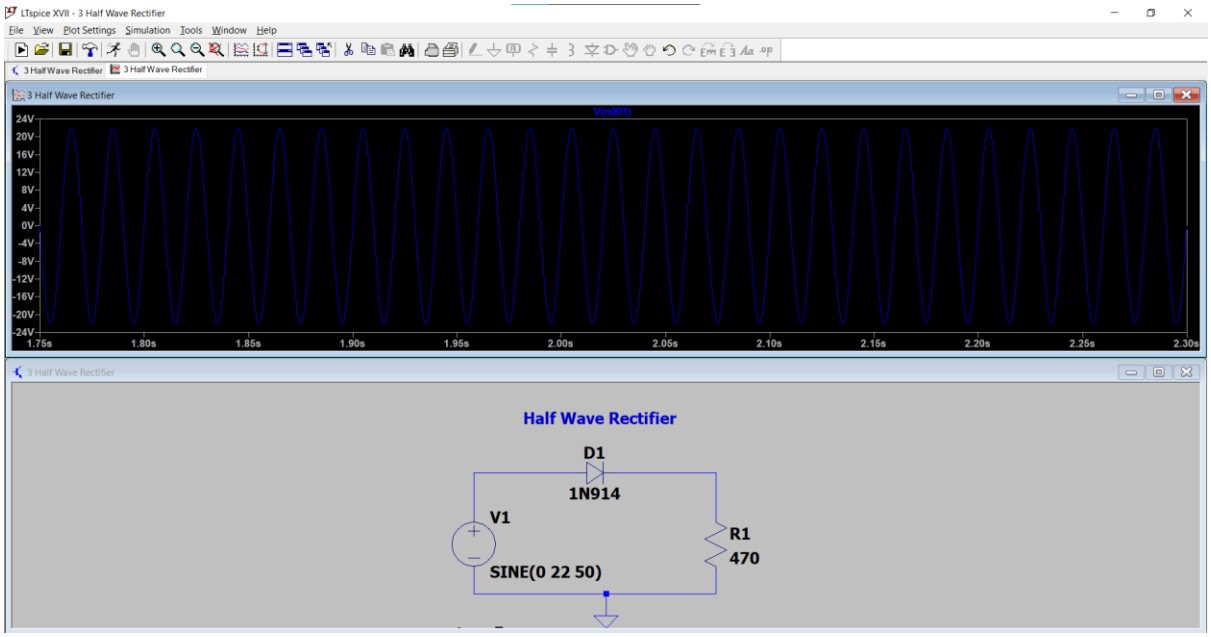
CIRCUIT OUTPUTS

EXPERIMENT 3

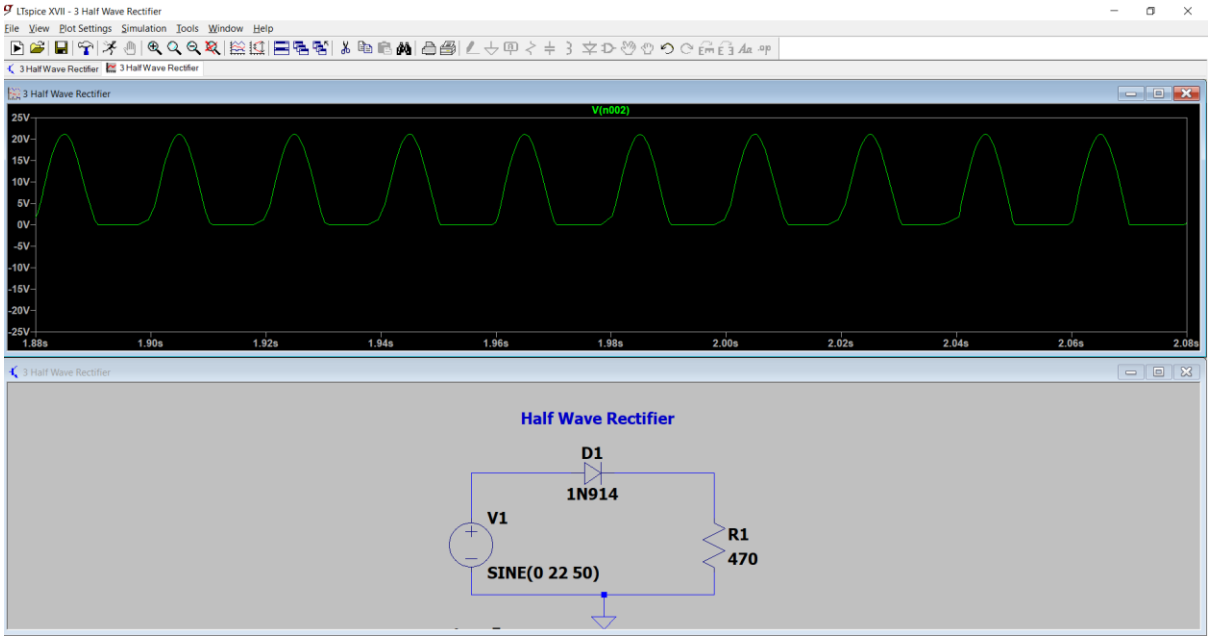
RECTIFIERS.

HALF WAVE RECTIFIER

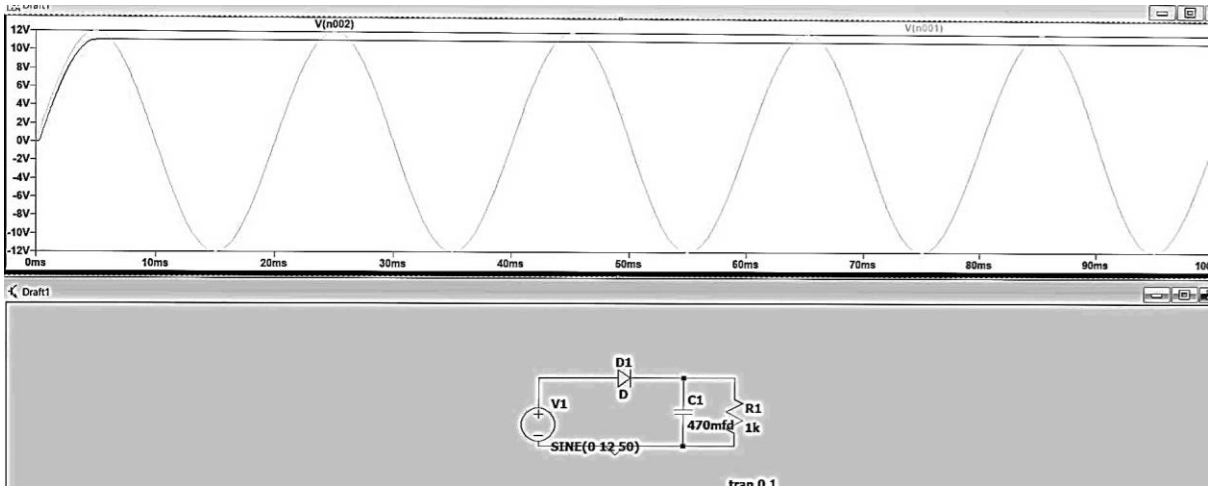
INPUT WAVEFORM:



OUTPUT WAVEFORM WITHOUT FILTER:

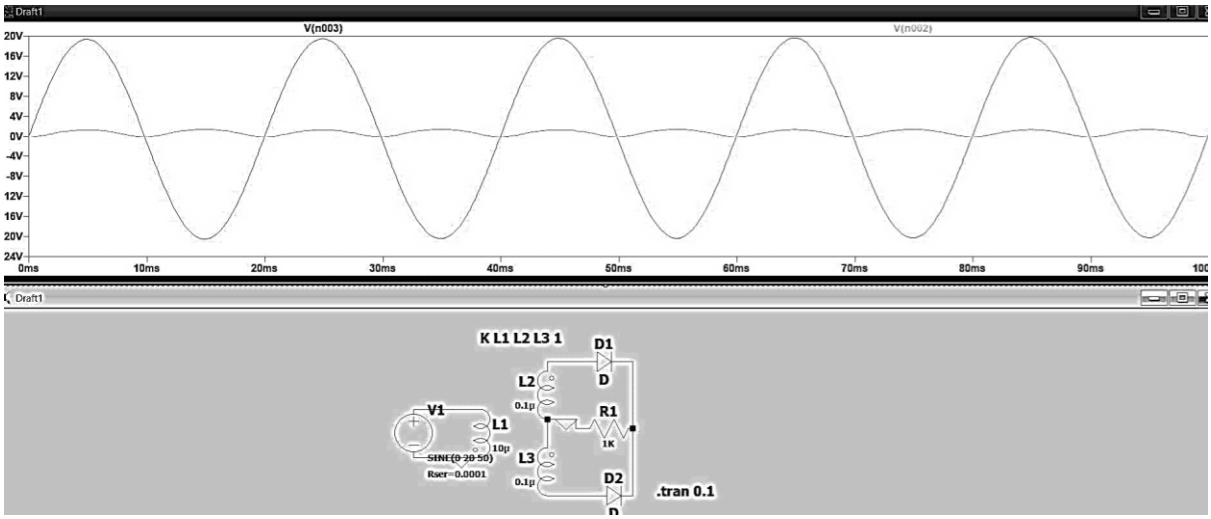


OUTPUT WAVEFORM WITH FILTER:

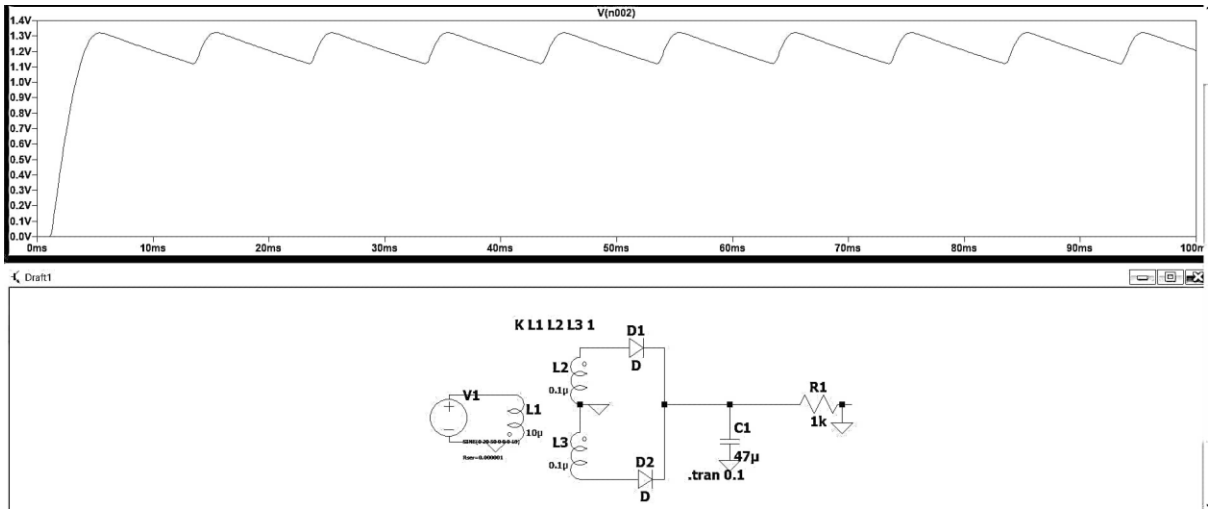


FULL WAVE RECTIFIER

OUTPUT WAVEFORM WITHOUT FILTER:

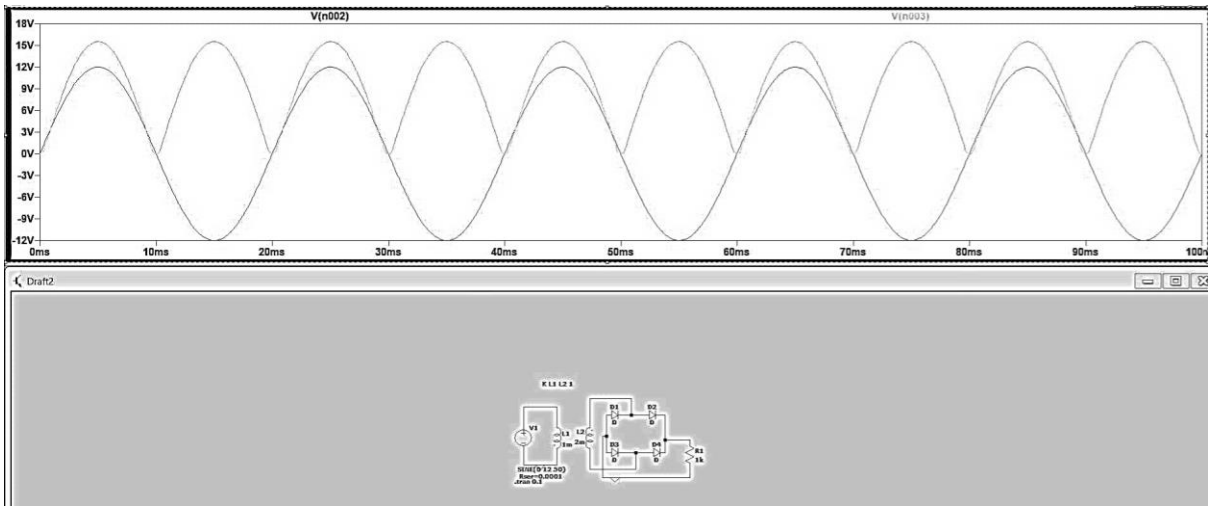


OUTPUT WAVEFORM WITH FILTER:

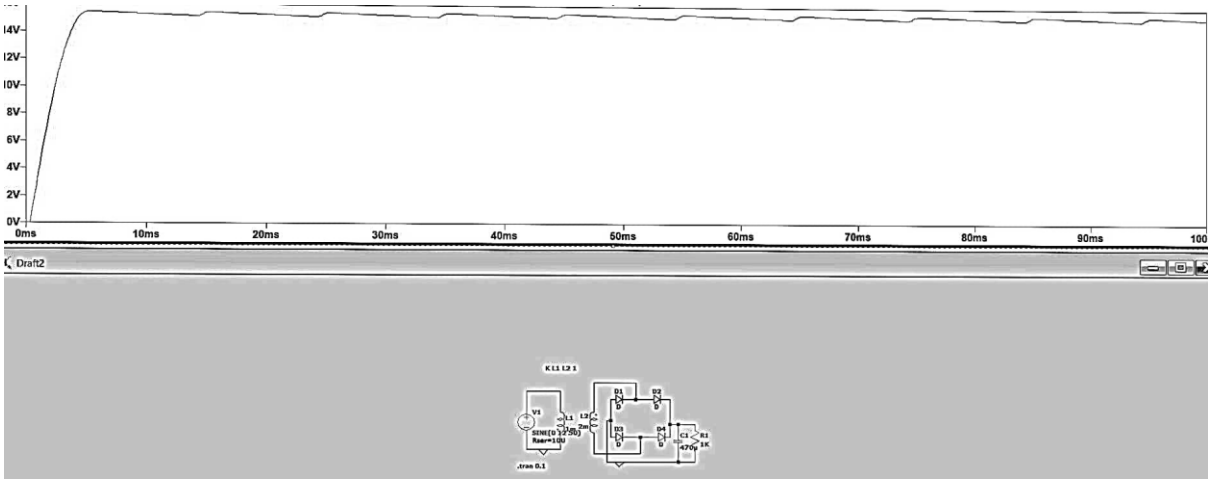


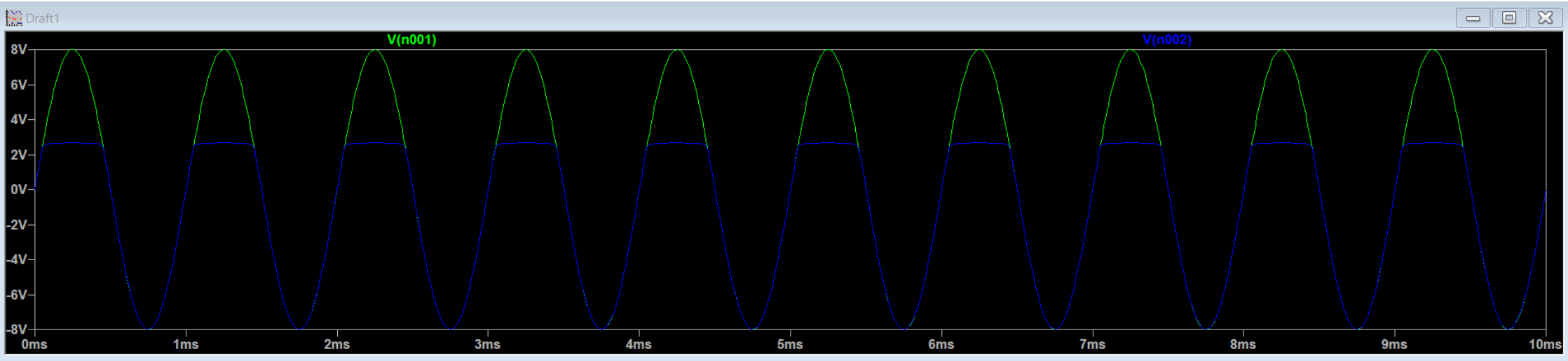
BRIDGE RECTIFIER

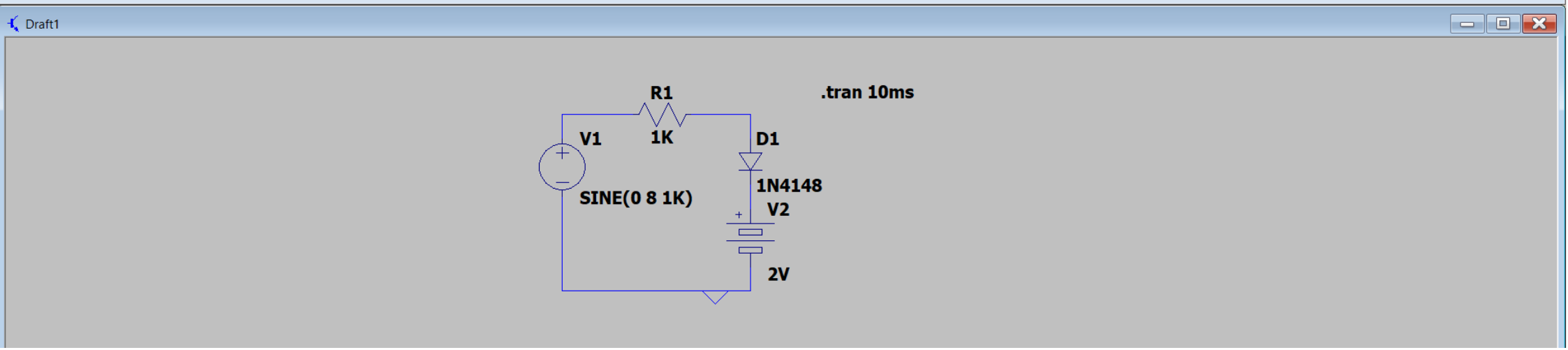
OUTPUT WAVEFORM WITHOUT FILTER:



OUTPUT WAVEFORM WITH FILTER:



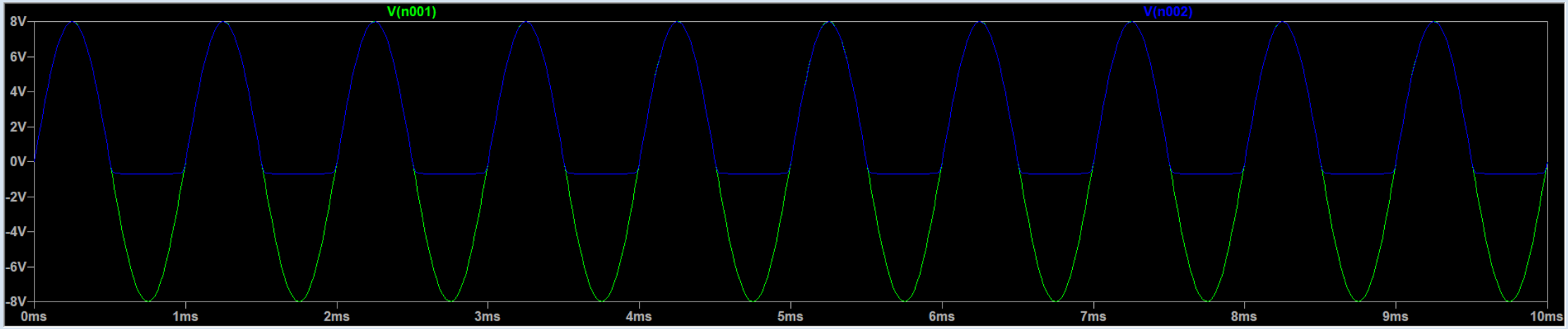

Draft1
V(n001)
V(n002)
8V
6V
4V
2V
0V
-2V
-4V
-6V
-8V
0ms
1ms
2ms
3ms
4ms
5ms
6ms
7ms
8ms
9ms
10ms

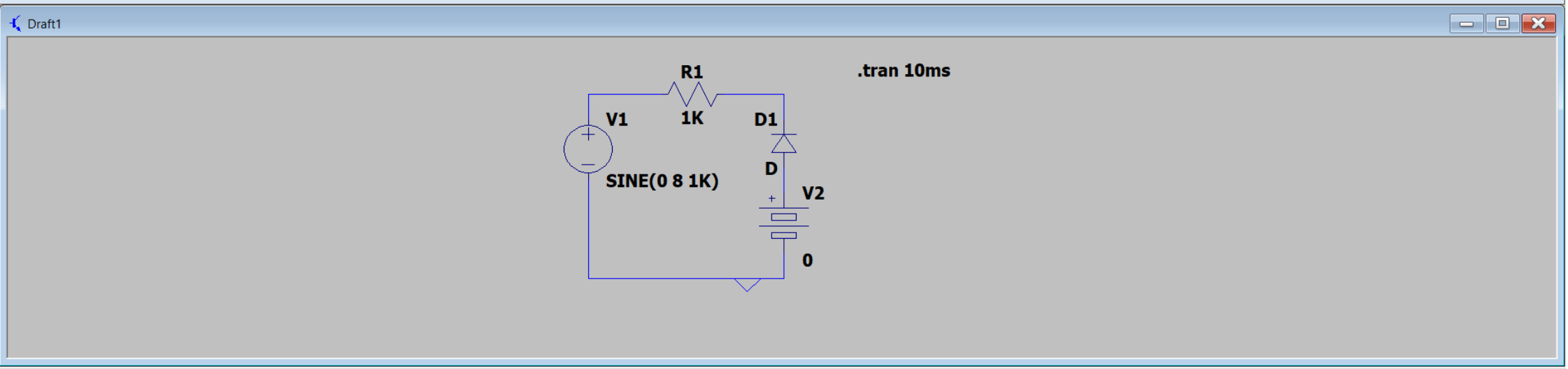

Draft1
R1
.tran 10ms
V1
1K
D1
1N4148
SINE(0 8 1K)
V2
2V

LTspice XVII - Draft1

File Edit Hierarchy View Simulate Tools Window Help

Draft1 Draft1





Right click to edit ".tran 10ms"

Type here to search

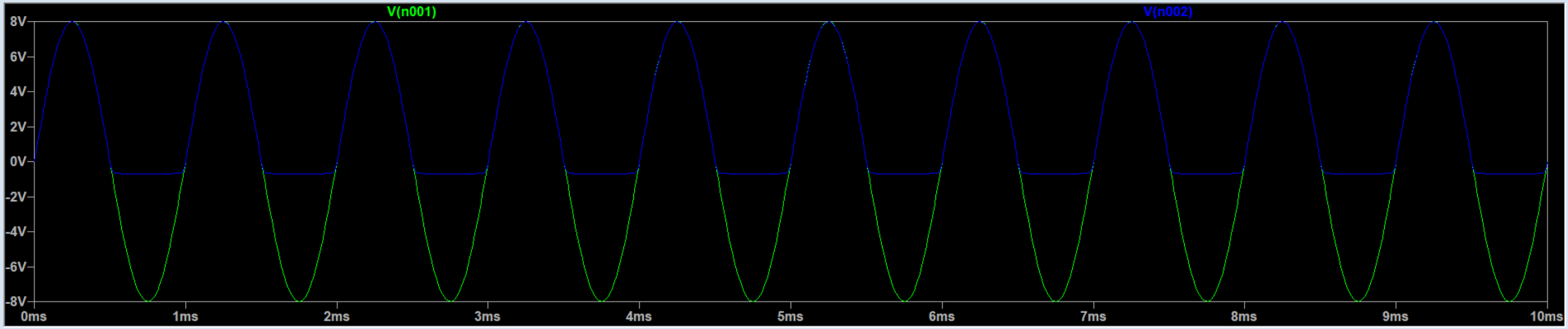
27°C Light rain ENG 18:43 17-10-2021

LTspice XVII - Draft1

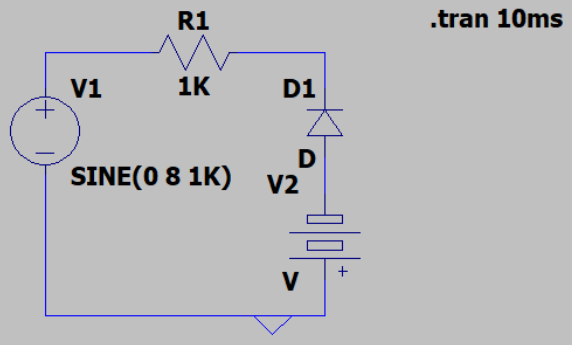
File Edit Hierarchy View Simulate Tools Window Help

Draft1 Draft1

Draft1



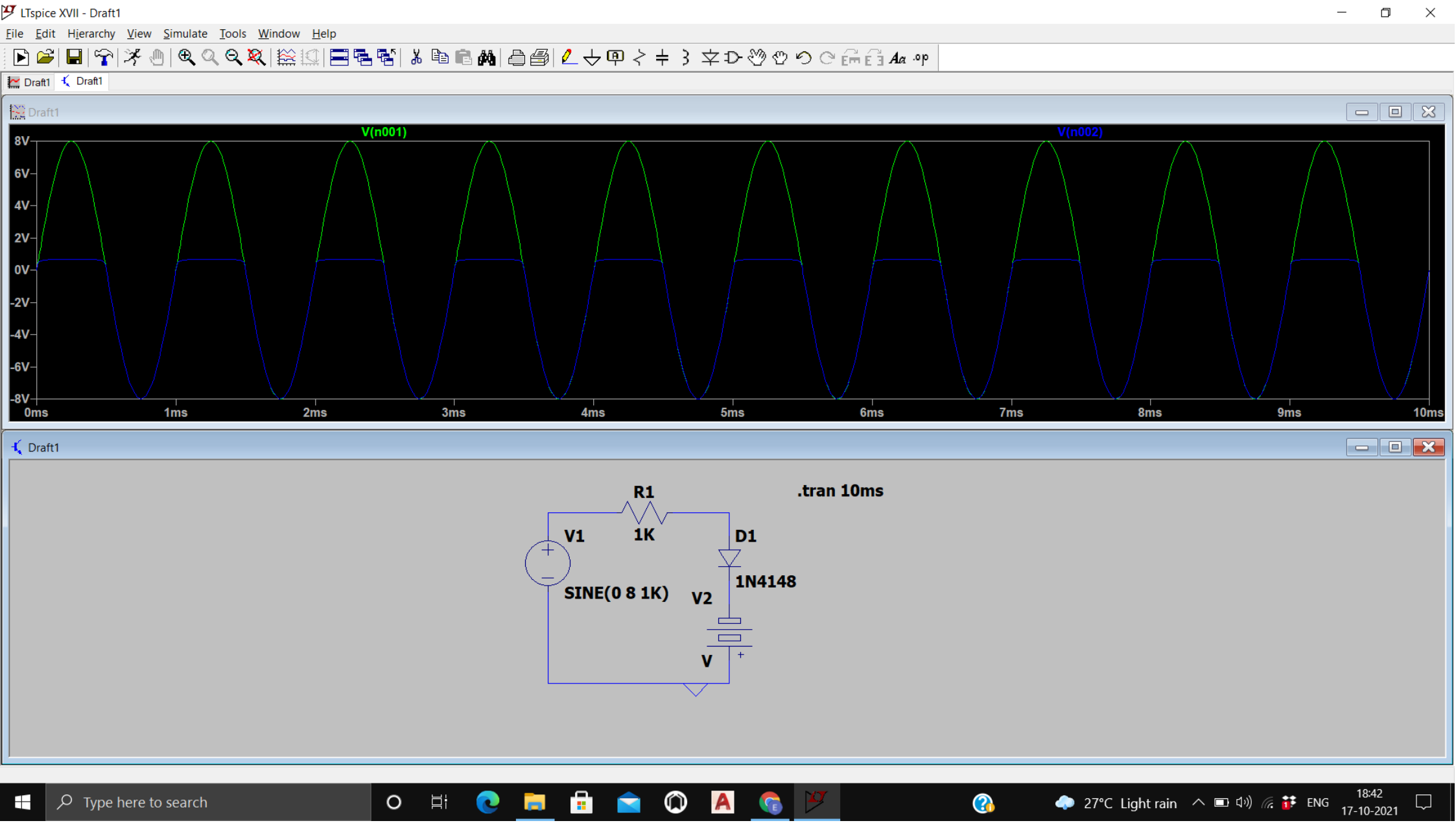
Draft1

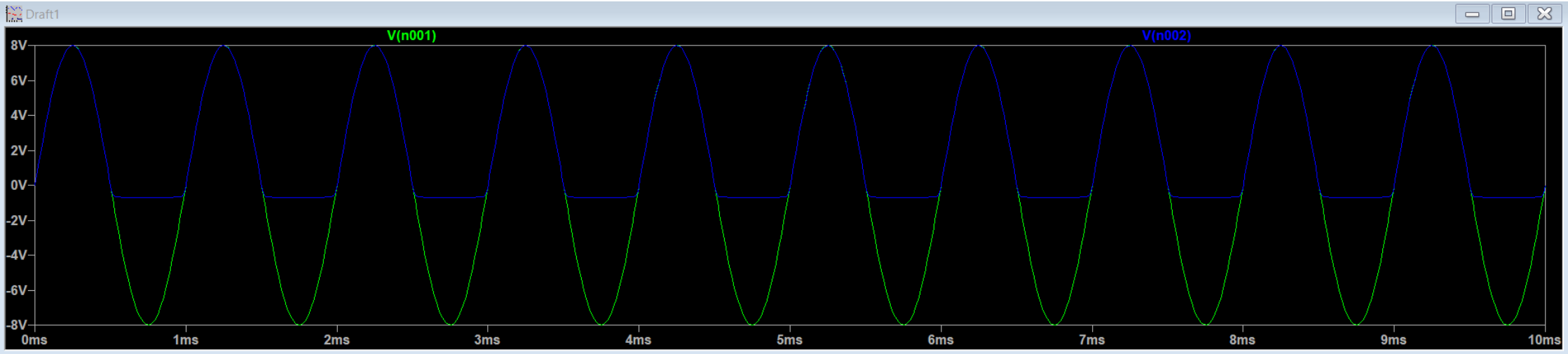


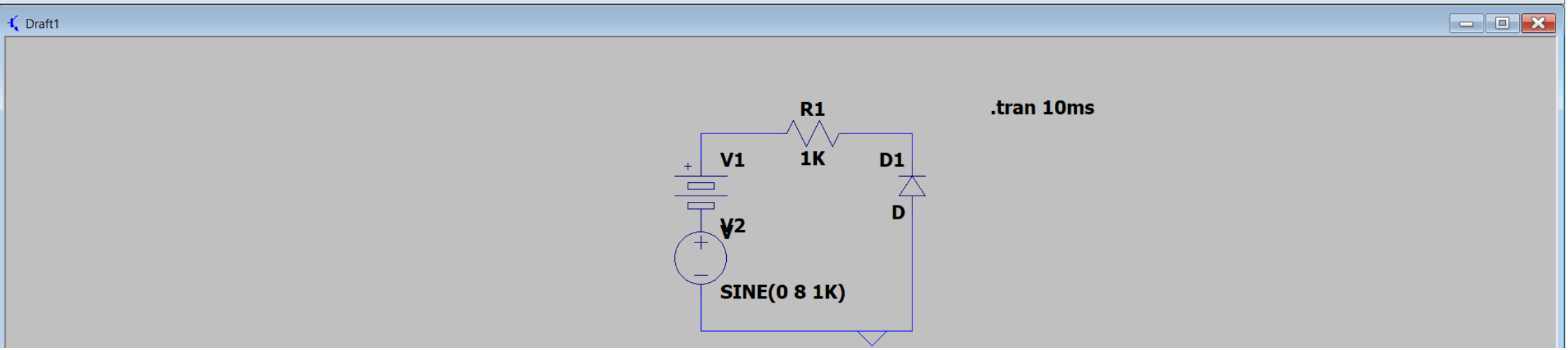
.tran 10ms

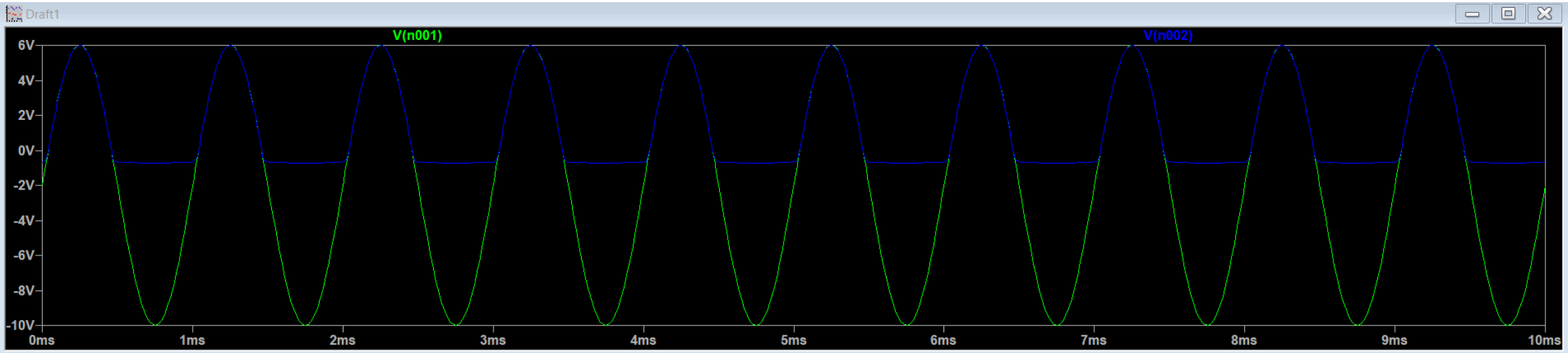
Type here to search

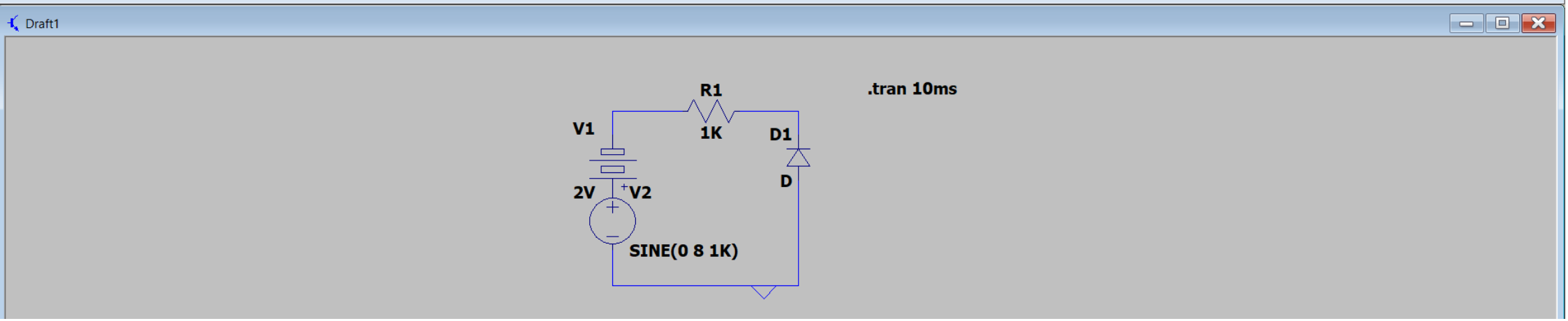
27°C Light rain ENG 18:44 17-10-2021

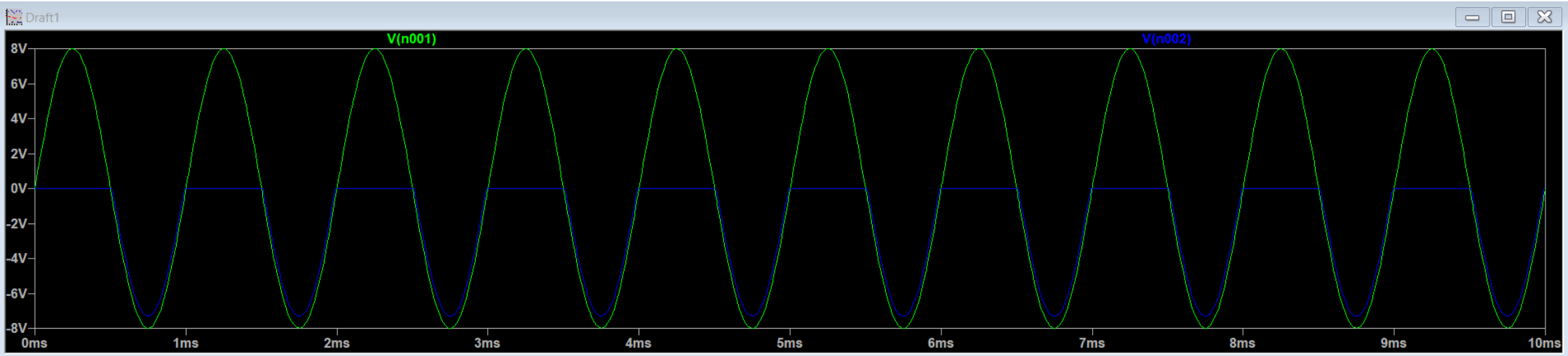

LTspice XVII - Draft1
File Edit Hierarchy View Simulate Tools Window Help
Draft1
Draft1
V(n001)
V(n002)
8V
6V
4V
2V
0V
-2V
-4V
-6V
-8V
0ms
1ms
2ms
3ms
4ms
5ms
6ms
7ms
8ms
9ms
10ms
Draft1
R1
1K
V1
SINE(0 8 1K)
D1
1N4148
V2
V
.tran 10ms
Type here to search
27°C Light rain
ENG
18:42
17-10-2021


Draft1
V(n001)
V(n002)
8V
6V
4V
2V
0V
-2V
-4V
-6V
-8V
0ms
1ms
2ms
3ms
4ms
5ms
6ms
7ms
8ms
9ms
10ms


Draft1
R1
1K
V1
D1
D
V2
SINE(0 8 1K)
.tran 10ms


Draft1
V(n001)
V(n002)
6V
4V
2V
0V
-2V
-4V
-6V
-8V
-10V
0ms
1ms
2ms
3ms
4ms
5ms
6ms
7ms
8ms
9ms
10ms


Draft1
R1
1K
V1
D1
D
2V
V2
SINE(0 8 1K)
.tran 10ms


Draft1
V(n001)
V(n002)
8V
6V
4V
2V
0V
-2V
-4V
-6V
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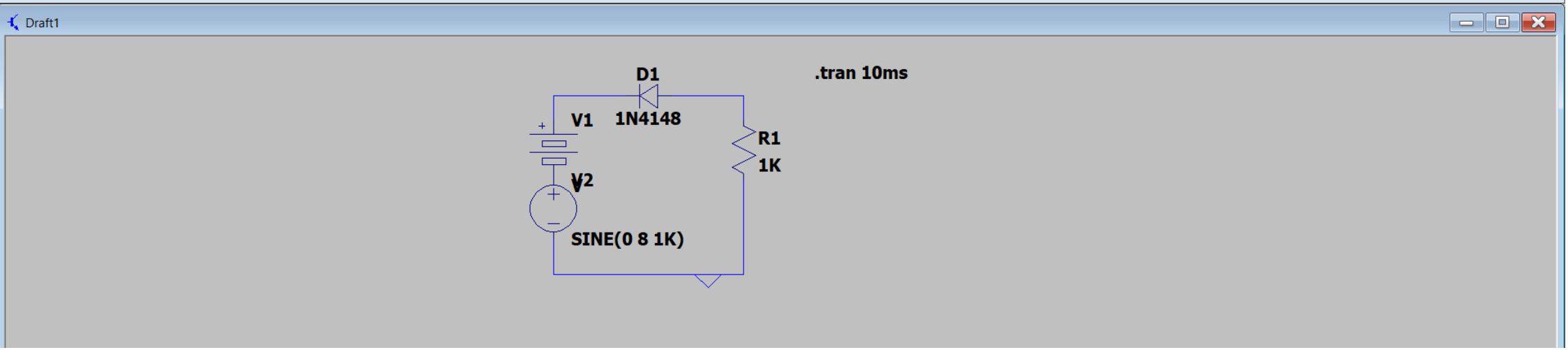
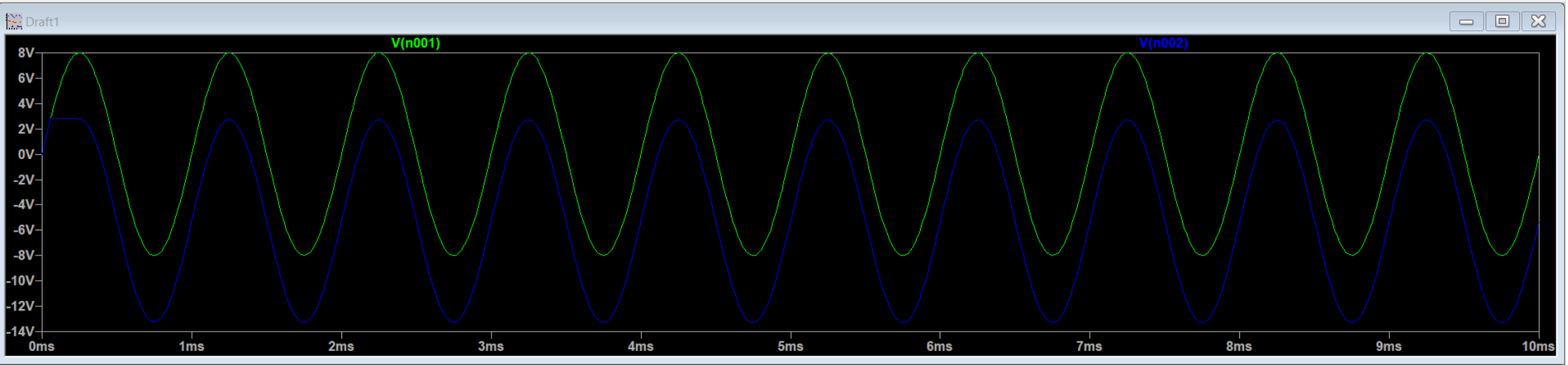
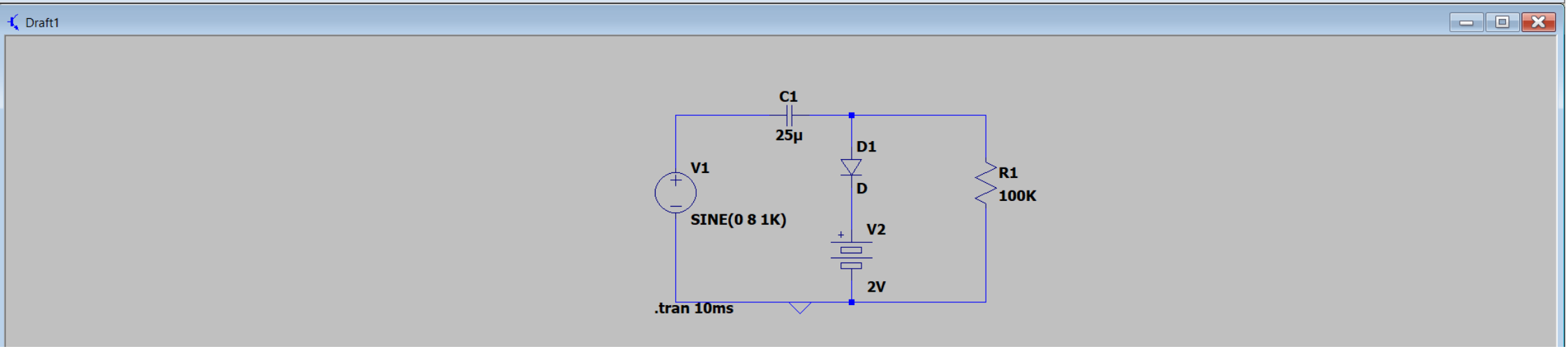
0ms
1ms
2ms
3ms
4ms
5ms
6ms
7ms
8ms
9ms
10ms


Draft1
D1
1N4148
V1
R1
1K
V2
SINE(0 8 1K)
.tran 10ms


Draft1
V(n001)
V(n002)
8V
6V
4V
2V
0V
-2V
-4V
-6V
-8V
-10V
-12V
-14V
0ms
1ms
2ms
3ms
4ms
5ms
6ms
7ms
8ms
9ms
10ms


Draft1
C1
25µ
D1
V1
D
R1
100K
SINE(0 8 1K)
V2
2V
.tran 10ms