```
Triangular Oscillator
Caleb Alexander
C 2 6 10n IC=0
R 6c 2 8k
R1 6 3c 1k
R2 3c 6c 2k
Xint 0 2 7 4 6 TL071
Xcomp 3c 0 7 4 6c TL071
VCC 7 0 DC 15
VEE 4 0 DC -15
* TL071 OPERATIONAL AMPLIFIER "MACROMODEL" SUBCIRCUIT
* CREATED USING PARTS RELEASE 4.01 ON 06/16/89 AT 13:08
* (REV N/A) SUPPLY VOLTAGE: +/-15V
* CONNECTIONS: NON-INVERTING INPUT
* | INVERTING INPUT
* | | POSITIVE POWER SUPPLY
* | | | NEGATIVE POWER SUPPLY
* | | | | OUTPUT
* | | | | |
.SUBCKT TL071 1 2 3 4 5 *
 C1 11 12 3.498E-12
 C2 6 7 15.00E-12
 DC 5 53 DX
 DE 54 5 DX
 DLP 90 91 DX
 DLN 92 90 DX
 DP 4 3 DX
 EGND 99 0 POLY(2) (3,0) (4,0) 0 .5 .5
 FB 7 99 POLY(5) VB VC VE VLP VLN 0 4.715E6 -5E6 5E6 5E6 -5E6
 GA 6 0 11 12 282.8E-6
 GCM 0 6 10 99 8.942E-9
 ISS 3 10 DC 195.0E-6
 HLIM 90 0 VLIM 1K
 J1 11 2 10 JX
 J2 12 1 10 JX
 R2 6 9 100.0E3
 RD1 4 11 3.536E3
 RD2 4 12 3.536E3
 RO1 8 5 150
 RO2 7 99 150
 RP 3 4 2.143E3
 RSS 10 99 1.026E6
 VB 9 0 DC 0
 VC 3 53 DC 2.200
 VE 54 4 DC 2.200
 VLIM 7 8 DC 0
 VLP 91 0 DC 25
 VLN 0 92 DC 25
.MODEL DX D(IS=800.0E-18)
.MODEL JX PJF(IS=15.00E-12 BETA=270.1E-6 VTO=-1)
.ENDS TL071
.TRAN 0 0.5m UIC
.PROBE
.END
```