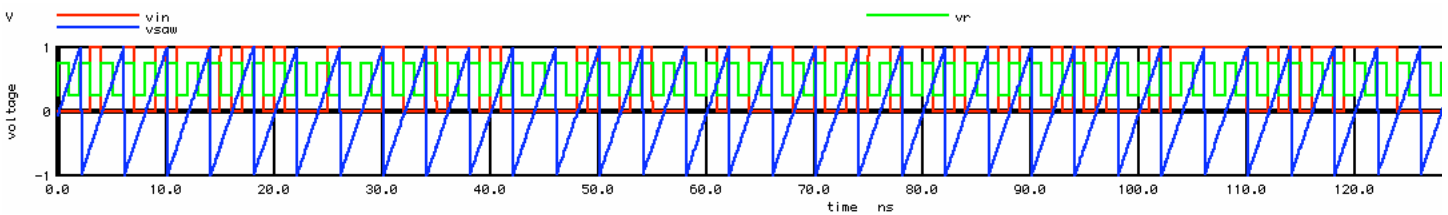
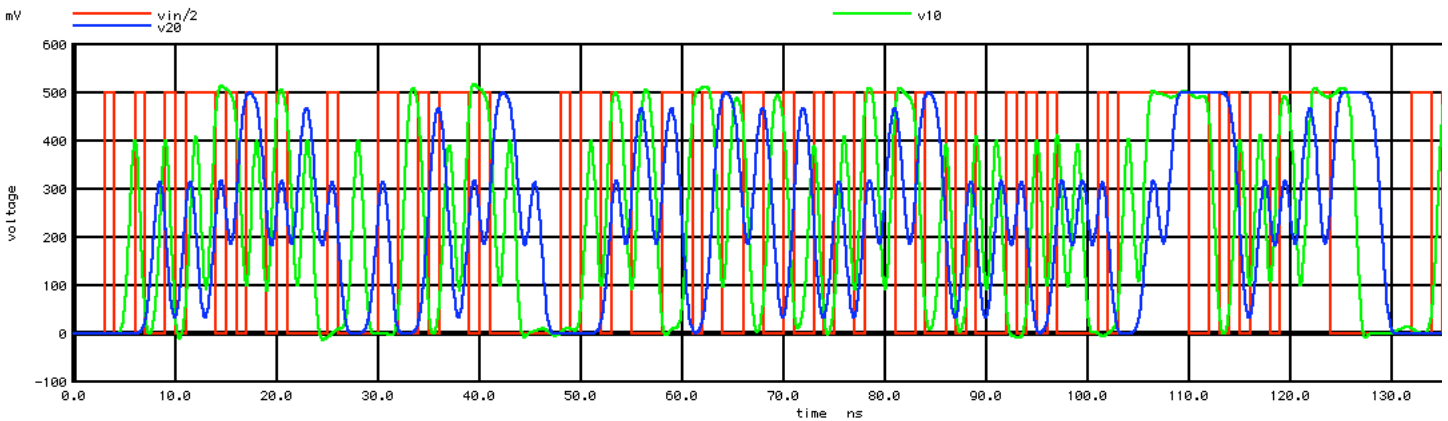
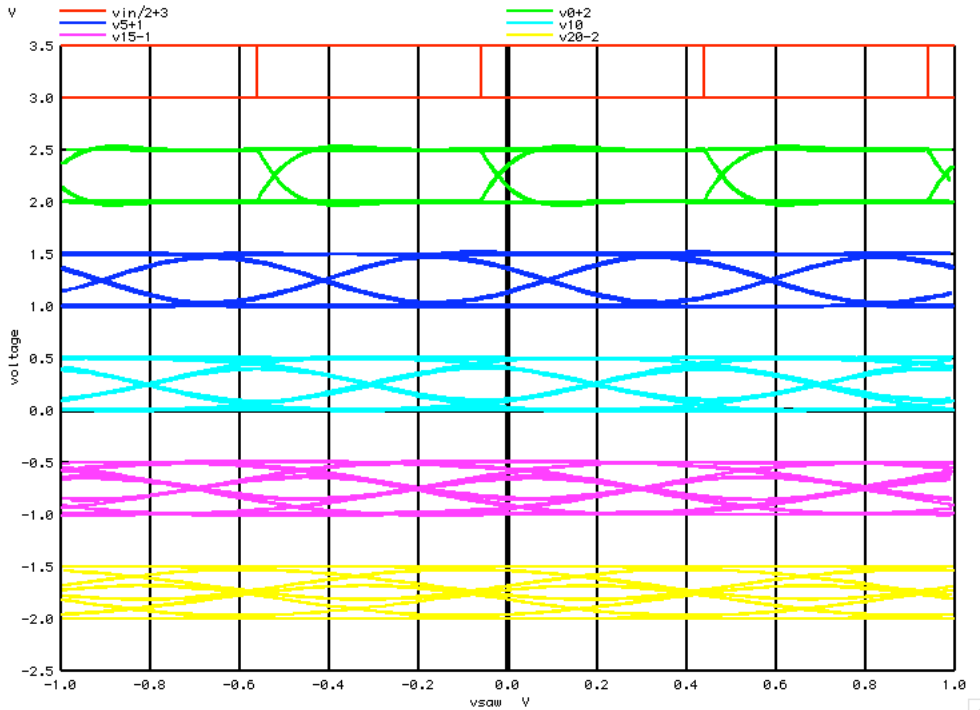
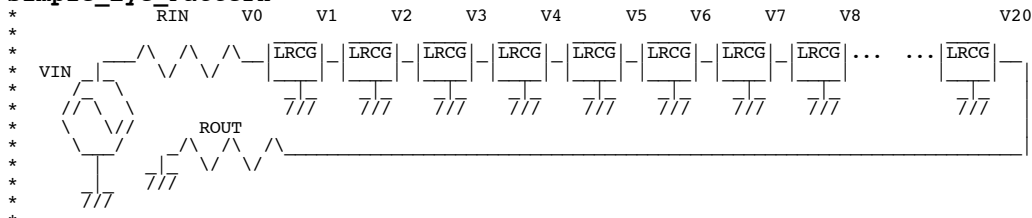


Simple_Eye_Pattern

A GOOD APPLICATION FOR DIGITAL RANDOMNESS.



Simple_Eye_Pattern



```

=====Need A voltage Source to alter=====
VIN      VIN      0      dc      0
Vref     VR       0      dc      0      PULSE( .25 .75 1p 1p 1p 1n 2n )
=====Need A SawTooth=====
VT       VT       0      dc      0      PWL      ( 0 0 1 1 )
BSAW     VSAW    0      V      =      2*atan(tan(6.283185307179*125meg*v(VT)-3.1415926535*.03))/3.1415926535
=====MODEL Cable=====

```

```

RIN      VIN    V0    50
CIN      V0     0     5p
XLRCG0   V0     V1    LRCG
XLRCG1   V1     V2    LRCG
XLRCG2   V2     V3    LRCG
XLRCG3   V3     V4    LRCG
XLRCG4   V4     V5    LRCG
XLRCG5   V5     V6    LRCG
XLRCG6   V6     V7    LRCG
XLRCG7   V7     V8    LRCG
XLRCG8   V8     V9    LRCG
XLRCG9   V9     V10   LRCG
XLRCG10  V10    V11   LRCG
XLRCG11  V11    V12   LRCG
XLRCG12  V12    V13   LRCG
XLRCG13  V13    V14   LRCG
XLRCG14  V14    V15   LRCG
XLRCG15  V15    V16   LRCG
XLRCG16  V16    V17   LRCG
XLRCG17  V17    V18   LRCG
XLRCG18  V18    V19   LRCG
XLRCG19  V19    V20   LRCG
ROUT     V20    0     50

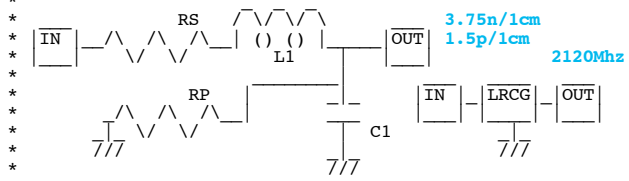
```

***=====LRCG_MODEL=====**

```

.SUBCKT LRCG IN OUT
RS IN INS 1m
RBP IN OUT 200
L1 INS OUT 12n
C1 OUT 0 4.8p
RP OUT 0 1meg
.ENDS LRCG

```



```

.control
set pensize = 2
echo "=====Want_150_2ns_periods=====
let n = 150
let tstep = 1ns
echo "Sample_Period_s = $tstep"
echo "=====Create_arrays_====="
unlet pwl_1
unlet noise
unlet ii
let pwl_1 = vector(4*n)
let noise = vector(n)
let ii = vector(1*$n)
echo "=====create_Noise_array====="
let index = 0
repeat $n
let noise[index] = pos(rnd(127)-64)
let index = index + 1
end
*plot noise vs ii
echo "=====create_PWL_array====="
pwl_1[0] = 0
pwl_1[1] = noise[0]
pwl_1[2] = tstep -1p
pwl_1[3] = noise[0]
let n2 = n-1
let index = 1
repeat $n2
pwl_1[0+4*index] = pwl_1[4*index-4] +tstep
pwl_1[1+4*index] = noise[index]
pwl_1[2+4*index] = pwl_1[0+4*index] +tstep -1p
pwl_1[3+4*index] = noise[index]
let index = index + 1
end
echo "=====Install_the_PWL_array====="
alter @vin[pwl] = pwl_1
echo "=====Run_and_Plot====="
let period_s = tstep/2
let period_t = n*tstep
*TRAN TSTEP TSTOP TSTART TMAX ?UIC?
tran $&period_s $&period_t 0 $&period_s
plot vsaw
plot vin/2 v10 v20
plot vin/2+3 v0+2 v5+1 v10 v15-1 v20-2 vs vsaw
echo "=====Donet====="
.endc
.end

```