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10 ' << CIRCUITOS ELECTRICOS >>
20 ' COPYRIGHT M.J.C. & F.A.P. 1985.
30 BORDER 1:MODE 0:INK 0,1:INK 1,26,6:SPEED INK 5,5:INK 2,24:INK 3,6:PAPER 0:PEN
  1:CLS:LOCATE 6,8:PRINT"CIRCUITOS":LOCATE 5,14:PRINT
"ELECTRICOS":FOR T=1 TO 2000:NEXT:INK 1,26:MODE 1
40 GOSUB 9100:RESTORE 9000:FOR Z=1 TO 25:READ E$:LOCATE 1,Z:PRINT E$:SOUND 1,100
,2:NEXT:SOUND 1,200,5:GOSUB 9110
50 IF INKEY$="" THEN 50
60 MODE 0:INK 4,8:INK 5,18:INK 6,2:INK 7,20:INK 8,13:INK 9,15:INK 10,12:INK 11,7
:PEN 1:CLS
65 DIM A(24,2),C(25),E(25)
70 LOCATE 2,1:PRINT"CIRCUITO ELECTRICO"
80 PEN 2:FOR Y=3 TO 18 STEP 5:FOR X=2 TO 17:LOCATE X,Y:PRINT CH$:NEXT:NEXT
90 FOR X=2 TO 17 STEP 15:FOR Y=3 TO 18:LOCATE X,Y:PRINT CV$:NEXT:NEXT
100 PEN 9:CC=65:FOR Y=3 TO 18 STEP 5:FOR X=2 TO 17 STEP 5:LOCATE X,Y:PRINT CHR$(
CC):CC=CC+1:NEXT:NEXT
110 pl$="N":sl$="0":pl=78:sl=79
180 GOSUB 9200:GOSUB 2000:IF K=100 THEN 150 ELSE E(S)=5:NF=S:GOSUB 3000
190 LOCATE 1,24:INPUT"CUANTAS BOMBILLAS":NB
200 GOSUB 9200:IF NB<0 OR NB>12 OR NB<>INT(NB) THEN 190
210 GOSUB 9200
220 FOR Z=1 TO NB
230 LOCATE 1,24:INPUT"DESDE LETRA ";PL$:PL$=UPPER$(PL$):PL=ASC(PL$):IF PL<65 OR
PL>80 OR LEN(PL$)>1 THEN GOSUB 9200:GOTO 230
240 LOCATE 1,25:INPUT"HASTA LETRA ";SL$:SL$=UPPER$(SL$):SL=ASC(SL$):IF SL<65 OR
SL>80 OR LEN(SL$)>1 OR PL>SL THEN GOSUB 9200:GOTO 23
0
250 GOSUB 9200:GOSUB 2000:IF K=100 THEN 230 ELSE E(S)=1:GOSUB 3100:NEXT
260 LOCATE 1,24:INPUT"CUANTOS TIMBRES":NT
270 GOSUB 9200:IF NT<0 OR NT>12 OR NT<>INT(NT) THEN 260
280 GOSUB 9200
290 FOR Z=1 TO NT
300 LOCATE 1,24:INPUT"DESDE LETRA ";PL$:PL$=UPPER$(PL$):PL=ASC(PL$):IF PL<65 OR
PL>80 OR LEN(PL$)>1 THEN GOSUB 9200:GOTO 300
310 LOCATE 1,25:INPUT"HASTA LETRA ";SL$:SL$=UPPER$(SL$):SL=ASC(SL$):IF SL<65 OR
SL>80 OR LEN(SL$)>1 OR PL>SL THEN GOSUB 9200:GOTO 30
0
320 GOSUB 9200:GOSUB 2000:IF K=100 THEN 300 ELSE E(S)=2:GOSUB 3200:NEXT
330 LOCATE 1,24:PRINT"CUANTOS":INPUT"INTERRUPTORES":NI
340 GOSUB 9200:IF NI<0 OR NI>12 OR NI<>INT(NI) THEN 330
350 GOSUB 9200
360 FOR Z=1 TO NI
370 LOCATE 1,24:INPUT"DESDE LETRA ";PL$:PL$=UPPER$(PL$):PL=ASC(PL$):IF PL<65 OR

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PL>80 OR LEN(PL$)>1 THEN GOSUB 9200:GOTO 370
380 LOCATE 1,25:INPUT"HASTA LETRA ";SL$:SL$=UPPER$(SL$):SL=ASC(SL$):IF SL<65 OR
SL>80 OR LEN(SL$)>1 OR PL>SL THEN GOSUB 9200:GOTO 37
0
390 GOSUB 9200:GOSUB 2000:IF K=100 THEN 370 ELSE E(S)=3:GOSUB 3300
400 NEXT:PEN 2:RESTORE 9400:FOR Y=3 TO 18 STEP 5:FOR X=2 TO 17 STEP 5:READ A:LOC
ATE X,Y:PRINT CHR$(A):NEXT:NEXT
410 GOSUB 2500
420 L$=INKEY$:IF L$="" THEN 420
430 L$=UPPER$(L$):SOUND 1,10,3
440 IF L$="A" THEN 10000
450 IF L$="O" THEN ERASE A,C,E:GOTO 60
460 IF L$="F" THEN 4000
470 IF L$="I" THEN 5000
480 GOTO 420
2000 IF PL<69 THEN R=64:YY=2 ELSE IF PL<73 THEN R=68:YY=7 ELSE IF PL<77 THEN R=7
2:YY=12 ELSE R=76:YY=17
2010 XX=(PL-R)*5-1:IF ABS(PL-SL)<>1 THEN XX=XX-2:YY=YY+3
2020 S=(XX+1)/5:IF YY=2 THEN S=S ELSE IF YY=7 THEN S=S+3 ELSE IF YY=12 THEN S=S+
6 ELSE IF YY=17 THEN S=S+9 ELSE 2040
2030 GOTO 2045
2040 S=(XX+3)/5+12:IF YY=10 THEN S=S+4 ELSE IF YY=15 THEN S=S+8
2045 IF S=14 OR S=15 OR S=18 OR S=19 OR S=22 OR S=23 THEN K=100:GOTO 2070
2050 K=0:IF A(S,1)<>0 AND A(S,2)<>0 THEN K=100
2060 IF K=100 THEN 2070 ELSE A(S,1)=XX:A(S,2)=YY
2070 RETURN
2500 PEN 2:LOCATE 1,21:PRINT"F PONER EN MARCHA":LOCATE 1,22:PRINT"I ABRIR/CERRAR
":LOCATE 3,23:PRINT"INTERRUPTORES":LOCATE 1,24:PRINT
"O OTRO CIRCUITO":LOCATE 1,25:PRINT"A ABANDONAR":RETURN
2510 FOR Z=20 TO 25:LOCATE 1,Z:PRINT STRING$(19,32):NEXT:RETURN
3000 SOUND 1,100,5:PEN 6:LOCATE A(S,1),A(S,2)+1:PRINT P1$:LOCATE A(S,1),A(S,2)+2
:PRINT P2$:PEN 1:RETURN
3045 IF S=14 OR S=15 OR S=18 OR S=19 OR S=22 OR S=23 THEN 2070
3100 PEN 8:LOCATE A(S,1),A(S,2):PRINT BA$:PEN 11:LOCATE A(S,1),A(S,2)+1:PRINT B$
:PEN 1:RETURN
3150 PEN 1:LOCATE A(S,1),A(S,2):PRINT BE$:PEN 11:LOCATE A(S,1),A(S,2)+1:PRINT B$
:PEN 1:RETURN
3200 PEN 4:LOCATE A(S,1),A(S,2):PRINT TA$:PEN 5:LOCATE A(S,1),A(S,2)+1:PRINT T$:
PEN 1:RETURN
3250 PEN 7:SOUND 1,10,1:LOCATE A(S,1),A(S,2):PRINT TE$:PEN 5:SOUND 1,10,1:LOCATE
A(S,1),A(S,2)+1:PRINT T$:PEN 1:RETURN
3300 PEN 3:LOCATE A(S,1),A(S,2)+1:IF S<13 THEN PRINT IH$:LOCATE A(S,1)-1,A(S,2):
PRINT S ELSE PRINT IV$:LOCATE A(S,1)+1,A(S,2)+1:PRIN
T RIGHT$(STR$(S),ABS(S>9)+1)
3310 PEN 1:RETURN
3350 PEN 3:LOCATE A(S,1),A(S,2)+1:IF S<13 THEN PRINT CH$ ELSE PRINT CV$
3360 PEN 1:RETURN
4000 GOSUB 2510:LOCATE 1,24:PRINT"PULSA N PARA PARAR":LOCATE 5,25:PRINT"EL CIRCU
ITO"
4005 IF E(21)=3 OR E(10)=3 OR E(12)=3 OR E(24)=3 THEN RESTORE 9700:FOR Z=1 TO 18
:READ X:C(X)=0:NEXT:GOTO 4070
4010 IF E(17)=3 OR E(20)=3 THEN RESTORE 9710:FOR Z=1 TO 10:READ X:C(X)=0:NEXT:GO
TO 4030
4015 IF E(13)=3 OR E(1)=3 OR E(2)=3 OR E(3)=3 OR E(16)=3 THEN T=0 ELSE T=1
4017 RESTORE 9720:FOR Z=1 TO 5:READ X:C(X)=T:NEXT
4020 IF E(4)=3 OR E(5)=3 OR E(6)=3 THEN T=0 ELSE T=1
4022 FOR Z=4 TO 6:C(Z)=T:NEXT
4025 IF C(1)=0 AND C(4)=0 THEN T=0 ELSE T=1
4027 C(17)=T:C(20)=T
4030 IF E(7)=3 OR E(8)=3 OR E(9)=3 THEN T=0 ELSE T=1
4033 FOR Z=7 TO 9:C(Z)=T:NEXT
4040 IF C(17)=1 OR C(7)=1 THEN T=1 ELSE T=0
4050 RESTORE 9730:FOR Z=1 TO 4:READ X:C(X)=T:NEXT
4070 L$=INKEY$:IF L$="N" OR L$="n" THEN 4200
4080 RESTORE 9700:FOR Z=1 TO 18:READ S
4090 IF C(S)=0 THEN 4130
4100 IF E(S)=1 THEN GOSUB 3150
4120 IF E(S)=2 THEN GOSUB 3250:SOUND 1,100,5,15:GOSUB 3200

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4130 NEXT
4140 GOTO 4070
4200 RESTORE 9700:FOR Z=1 TO 18:READ S:C(S)=0:IF E(S)=1 THEN GOSUB 3100 ELSE IF
E(S)=2 THEN GOSUB 3200
4210 NEXT:GOSUB 2510:GOSUB 2500:GOTO 420
5000 PEN 2:GOSUB 2510:LOCATE 1,24:INPUT"QUE INTERRUPTOR";IN:IF IN<0 OR IN>24 OR
IN<>INT(IN) THEN GOSUB 2500:GOTO 420
5010 S=IN:IF E(S)=3 THEN GOSUB 3350:E(S)=4 ELSE IF E(S)=4 THEN GOSUB 3300:E(S)=3

5020 GOSUB 9200:GOSUB 2500:GOTO 420
9000 DATA "      CIRCUITOS ELECTRICOS EN SERIE",,,, " Con este programa podras di
señar,a tu","gusto, circuitos electricos en los que"
,se combinan distintos componentes como,"son: PILAS, BOMBILLAS, TIMBRES E",INTER
RUPTORES.
9010 DATA ,," Todos estos componentes podran ir",colocados en una parrilla con
24 posi-,ciones distintas.,," El objetivo del progr
ama es que por",medio del juego se puedan aprender las,bases del funcionamiento
de la electri-,cidad.
9020 DATA ,," Si quieres abandonar el programa a",medias pulsa la tecla A.,,"
PULSA UNA TECLA PARA CONTINUAR"
9100 SYMBOL AFTER 32:SYMBOL 64,118,216,0,216,102,102,102,0:RETURN
9110 SYMBOL 190,7,24,35,36,34,17,9,9:SYMBOL 191,224,24,196,36,68,136,144,144:SYM
BOL 192,31,15,7,15,3,7,1,1:SYMBOL 193,248,240,224,24
0,192,224,128,128:SYMBOL 194,7,31,63,63,63,31,15,15:SYMBOL 195,224,184,220,220,2
20,184,240,240
9120 SYMBOL 196,7,7,7,7,7,7,15,15:SYMBOL 197,224,224,224,224,224,224,240,240:SYM
BOL 198,3,12,17,33,32,17,14,7:SYMBOL 199,240,56,204,
198,134,12,56,240:SYMBOL 200,35,76,147,162,160,145,78,39:SYMBOL 201,244,58,173,2
30,134,13,58,244
9130 SYMBOL 202,12,28,48,227,195,0,0,0:SYMBOL 203,24,24,192,192,96,48,24,24:SYMB
OL 204,0,0,0,232,208,32,127,125:SYMBOL 205,121,125,1
25,127,125,126,127,127:SYMBOL 206,0,64,32,23,11,4,254,62:SYMBOL 207,222,190,30,2
54,222,190,126,254
9140 B$=CHR$(192)+CHR$(193):BA$=CHR$(190)+CHR$(191):BE$=CHR$(194)+CHR$(195):T$=C
HR$(196)+CHR$(197):TA$=CHR$(198)+CHR$(199):TE$=CHR$(
200)+CHR$(201):IH$=CHR$(202):IV$=CHR$(203):P1$=CHR$(204)+CHR$(206): P2$=CHR$(205
)+CHR$(207):E$=CHR$(32):EE$=E$+E$
9150 CV$=CHR$(149):CH$=CHR$(154):VD$=CHR$(151):VI$=CHR$(157):HB$=CHR$(158):HS$=C
HR$(155):CR$=CHR$(159):SD$=CHR$(150):SI$=CHR$(156):B
I$=CHR$(153):BD$=CHR$(147):RETURN
9200 LOCATE 1,24:PRINT STRING$(20,32):LOCATE 1,25:PRINT STRING$(19,32):RETURN
9400 DATA 150,154,154,156,151,154,154,157,151,154,154,157,147,154,154,153
9700 DATA 1,2,3,4,5,6,7,8,9,10,11,12,13,16,17,20,21,24
9710 DATA 17,13,1,2,3,4,5,6,16,20
9720 DATA 13,1,2,3,16
9730 DATA 21,10,12,24
10000 MODE 1:PEN 1:CLS:SYMBOL AFTER 31:PRINT"PREPARADO PARA EL SIGUIENTE PROGRAM
A":RUN""

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