

A Matter of Values

•In the "Power On/Off IR Remote Controller" in the October issue, there is an error in Fig. 2. The resistor and capacitor values do not cause the circuit to oscillate at 40 kHz, as the article states. The appropriate equation for this circuit is $f = 1.44 / [(R1 + 2R2) \times C]$. Try the values given in the article, and you will see that one or more of them is incorrect.

Kevin C. Carpenter
Colchester, VT

The value of the capacitor should be 0.005 microfarad. While this won't yield an exact 40 kHz, the transmit frequency will be close enough for purposes of the project. To get much closer to the mark with this value, you would have to change the value of R4 to 2,500 ohms.—Ed.

Gremlins at Work

•In reading over my "Thermally Machine Project Boxes" in the November is-

sue, I noticed a couple of minor errors. In the first column on page 20, line 17, change "¼-inch" to "¼"-inch. In the Bill of Materials, change the fuse specification to "fast-blow."

Adolph A. Mangieri

•"Computer-Controlled AC Interface" (November) really caught my eye and is the type of material every computer hacker likes to experiment with. This is a good project, but without a complete listing of the BASIC control program, it is essentially useless. Could you please supply the complete program?

Eugene P. Schmitt
Mequon, WI

You are correct. When we ran out the disk file containing the BASIC control program, the right side of those lines that exceeded 66 characters truncated and left the printout incomplete. Here is the program with all the information in it.—Ed.

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10 CLEAR: CLOSE: KEY OFF: CLS: DEC = 0: OUT 888, DEC
20 BYTE$ = " 0 0 0 0 0 0 0 0 0"
30 LOCATE 1, 21: PRINT "ZDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD?"
40 LOCATE 2, 21: PRINT "3 PARALLEL INTERFACE PROGRAM 3"
50 LOCATE 3, 21: PRINT "@DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDY"
60 LOCATE 10, 15: PRINT "BIT NUMBER 7 6 5 4 3 2
1 0"
70 LOCATE 11, 15: PRINT "DDDDDDDDDDDDDEDDDEDDDEDDDEDDDEDDDE
DDDEDDDD4"
80 LOCATE 12, 29: PRINT "3 3 3 3 3 3 3 3"
90 LOCATE 13, 29: PRINT "A A A A A A A A"
100 LOCATE 14, 15: PRINT " VALUE "; BYTE$
110 LOCATE 21, 16: PRINT "COPYRIGHT, GEORGE F. STOCKMAN, IV,
1989"
120 DELAY = TIMER + 5: WHILE DELAY > TIMER: WEND
130 LOCATE 21, 16: PRINT STRING$(41, 32)
140 LOCATE 21, 11: PRINT "BIT NUMBER TO TOGGLE / [CR] TO RESET /
[ESC] TO END"
150 A$ = INKEY$: IF A$ = "" THEN 150
160 IF A$ = "0" THEN 240 ELSE IF A$ = "1" THEN 260 ELSE IF A$ =
"2" THEN 280
170 IF A$ = "3" THEN 300 ELSE IF A$ = "4" THEN 320 ELSE IF A$ =
"5" THEN 340
180 IF A$ = "6" THEN 360 ELSE IF A$ = "7" THEN 380
190 IF A$ <> CHR$(13) THEN 230
200 BYTE$ = " 0 0 0 0 0 0 0 0 0"
210 DEC = 0: BIT0 = 0: BIT1 = 0: BIT2 = 0: BIT3 = 0
220 BIT4 = 0: BIT5 = 0: BIT6 = 0: BIT7 = 0: GOTO 430
230 IF A$ = CHR$(27) THEN CLS: SYSTEM ELSE BEEP: GOTO 150
240 IF BIT0 = 0 THEN BIT0 = 1: DEC = DEC + 1 ELSE BIT0 = 0: DEC =
DEC - 1
250 GOTO 390
260 IF BIT1 = 0 THEN BIT1 = 1: DEC = DEC + 2 ELSE BIT1 = 0: DEC =
DEC - 2
270 GOTO 390
280 IF BIT2 = 0 THEN BIT2 = 1: DEC = DEC + 4 ELSE BIT2 = 0: DEC =
DEC - 4
290 GOTO 390
300 IF BIT3 = 0 THEN BIT3 = 1: DEC = DEC + 8 ELSE BIT3 = 0: DEC =
DEC - 8
310 GOTO 390
320 IF BIT4 = 0 THEN BIT4 = 1: DEC = DEC + 16 ELSE BIT4 = 0: DEC
= DEC - 16
330 GOTO 390
340 IF BIT5 = 0 THEN BIT5 = 1: DEC = DEC + 32 ELSE BIT5 = 0: DEC
= DEC - 32
350 GOTO 390
360 IF BIT6 = 0 THEN BIT6 = 1: DEC = DEC + 64 ELSE BIT6 = 0: DEC
= DEC - 64
370 GOTO 390
380 IF BIT7 = 0 THEN BIT7 = 1: DEC = DEC + 128 ELSE BIT7 = 0: DEC
= DEC - 128
390 BYTE$ = "" : BYTE$ = BYTE$ + STR$(BIT7) + " " + STR$(BIT6) +
" "
400 BYTE$ = BYTE$ + STR$(BIT5) + " " + STR$(BIT4) + " "
410 BYTE$ = BYTE$ + STR$(BIT3) + " " + STR$(BIT2) + " "
420 BYTE$ = BYTE$ + STR$(BIT1) + " " + STR$(BIT0) + " "
430 OUT 888, DEC: LOCATE 14, 28: PRINT BYTE$: GOTO 150

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