## PERIPHERA

NEXT MEETING -- The November meeting of the $99 / 4$ Users Group will begin at 6 p.m. Sunday, Nov. 21, at the South Campus of the Community College of Allegheny County in West Mifflin.

A busy schedule is planned:
-- A representative from Okidata Corp. will be on hand to demonstrate his company's line of printers.
-- Sue Edwards of the TI Computer Advantage Club will discuss her organization. It currently offers beginning and advanced computer literacy courses for young people, a TI LOGO course and an introduction to home computers course for adults. Classes are being offered at the Greater Works Academy in Monroeville and North Hills High School.
-- Member Dick Bies will demonstrate the 1 megabyte ( 1 million bytes) disc storage system for the 99/4. This system uses the new double-density, double-sided disc drives.

We hope you will be able to attend!

REPORT ON OCTOBER MEETING -- Dick Bies demonstrated the expansion box during the first meeting at the University School in Shadyside. He also demonstrated his assembly-language arcade game for the 99/4. According to observers, the graphics and play surpassed the game upon which it was modeled -- Centipede. We understand Dick plans to sell it sometime soon.

Club president Dave Kanai says interest in the lending library is increasing and that a number of books for the various club members who have ordered them are due to arrive. He also reported that membership is continuing to grow and that we have been receiving referrals from the TI service center near the Greater Pittsburgh Airport.

A TECHNICAL NOTE -- Dave Kanai says he has been told that the Panasonic RQ2727 model tape recorder must have the earphone jack polarity reversed to work properly with the 99/4. He notes that while many recorders have to have the "remote" jack polarity reversed to function properly, this is the first time he had heard of this being necessary for any other connection.

AN OFFER -- Tony Dow has written a program which acts like the editor/assembler module only it is written in TI BASIC and uses the special commands available in the Mini Memory Module. Tony says Texas Instruments is interested in marketing the program, but wants to get some comments from other users before decided what to do. So Tony is making this offer: Anyone with the Mini Memory Module (it is required to run the program) may get a free copy of the program provided they agree not to copy it for anyone else and they give him their opinions about it after they have used it. Interested persons can contact Tony at 6360 Gaton, Pittsburgh, 15217.


| PARTS LIST | QTY. | PRICE | RADIO SHACK PART NUNBER |
| :--- | :--- | :--- | :---: |
| Box | 1 | $\$ 1.69$ | $270-220$ |
| LEED | 1 | $\$ .79$ | $276-041$ |
| Jacks | 1 | $\$ 1.19$ | $274-297$ |
| Phone plugs | 1 | $\$ 1.29$ | $274-286$ |

Plus a soldering iron and solder and about 12 inches of 2 -conductor 24-gauge wire.

HAVE YOU got the cassette recorder blues?
Does "ERROR DETECTED IN DATA" make you see red?
Well, here's one solution, with the schematic and parts list supplied by club vice president Jerry Rowell. Notice that all of the parts are inexpensive and can be purchased at Radio Shack stores.

## ASSEMBLY INSTRUCTIONS

After you have collected the parts:

1) Drill four holes in the box as indicated in the top drawing. (Be careful when you select the locations to drill. There are ribs in the side of the box to stiffen it. Makes your holes away from the ribs or the jacks won't be long enough to work.)
2) Wire up the jacks as indicated. Remember that the polarities of the light emitting diodes (LEDs) must be reversed. (One lead on each LFDD is longer than the other so you can tell them apart.) Study the jacks carefully to make sure the connections are correct.
3) Put the jacks at each end of the 2-conductor wire, being careful to keep the polarity the same.

## TO OPERATE

1) Plug the white cord from you computer's cassette port into J1 and the cable you made from J2 into the earphone output of your recorder. Plug in the other wires as normal.
2) Play back a tape using the "OLD CS1" command. You should be able to hear the cassette playback through your television or monitor like usual. If you don't, something's not wired right.
3) During playback, adjust the volume on your tape recorder until one LED is flashing dimly and the other is out. Jerry says this is the optimum recording and playback point. (Sometimes it is hard to tell the difference, so watch closely.)

## TO ADD FEATURES

1) Buy two more jacks (J3 and J4), drill two more holes in the box and connect the positive poles and negative poles together with wire. You also should buy an extra pair of jacks and more 2 -conductor wire to allow you to plug both computer output lines into the box and then into the recorder. This makes the box easier to handle and lessens the strain on the computer cables.
2) Replace the IEDs with Jim-Pak brand components numbered XC556R and buy the mounting hardward called LMH200 from Jim-Pak. Jerry says the mounting clips set off the IEDs more distinctly from the blue box and make them easier to see in bright lights. The items are available at Tydings Electronics Downtown or South Hills Electronics.
3) Replace the 2-conductor wire and jacks with a ready-made cord, Radio Shack part number 42-2420 (\$2.29). If you add the extra jacks, you can cut the store-bought cord in half and put the two phone plugs at the cut ends to make two cords (or you can buy two cords).

NOTES FROM DAVE KANAI -- We're going through the membership lists and we plan to send renewal notices to those members who are behind in their dues. We expect to have this task completed by the end of the year. Please save us some trouble and renew, if necessary, by mail or at the next meeting. Also, the Early Reading Command Module is still for sale at \$40. Please call 885-2731 or talk to me at the meeting.

HEARD 'ROUND HERE -- Richard Lamson of the Dallas TI Home Computer Group presented an interesting program to round off numbers in the club's March newsletter. The program is reproduced below:

130 REM RO=ROUND OFF DEGIMALS
140 REM ROI=ROUND OFF INTEGERS
150 DEF RO2 $(X)=\operatorname{INT}(X * 100+.5) / 100$
160 DEF R01 (X) $=\operatorname{INT}(X * 10+.5) / 10$
170 DEF RO $(\mathrm{X})=\operatorname{INT}(\mathrm{X}+.5)$
180 DEF ROII $(X)=\operatorname{INT}(X / 10+.5) * 10$
190 DEF ROI2 (X) $=\operatorname{INT}(\mathrm{X} / 100+.5) * 10$
200 REM EXAMPLE USAGE
$210 \mathrm{~A}=18893.4649$
$220 \mathrm{~B}=\mathrm{RO} 2(\mathrm{~A})$
$230 \mathrm{C}=\mathrm{R} 01$ (A)
$240 \mathrm{D}=\mathrm{RO} \varnothing(\mathrm{A})$
$250 \mathrm{E}=\mathrm{ROII}(\mathrm{A})$
$260 \mathrm{~F}=\mathrm{ROLI}(\mathrm{A})$
270 PRINT $A: B: C: D: E: F$
280 END
(Output shown at right)


