The Robot Companion

December, 1986

The November Meeting was held, as previously noted, in the Science Place, adjacent to the State Fair Grounds. Along with preparing for our demonstration of the "Frankenbot" play, we discussed the possibility of a robotic lawn mower and the problems associated with such a device; mainly, the positioning of the mower using infrared lights, lasers, etc. Since the noise level (both sound, and electrical) is so high, this is the hardest part to design.

The Frankenbot demonstration the following weekend went very well. We drew crowds to each performance by giving out handouts, and displaying a Hero I in the hallway that gave a continuous talk until the show began. After each performance, we had an excellent demo of the Hero 2000 and opened the floor to questions. Many people wanted to know what a robot cost and what it could do. Those of us involved had a lot of fun.

There is no "Word From The President", since Walter and Bev have left the state for the holidays, and in preparation for the holiday, they were too busy preparing for a demonstartion they would be giving. Perhaps when they return, they will share with us the results of this trip.

Industry News:

Radio Electronics continues their series on building the R-E robot, this issue discussing the single-board computer system, which is the heart of the robot, or should I say brain. If any of you are concidering this design, please let me or another club member know of your progress.

Hero I News:

This issue I have included a program written to help when converting a BASIC program to machine language. The SPE command, used to make the robot speak, converts the phoenemes to bytes that the speech board translates to sound. Once you decide to convert the program, you are forced to look up each phoeneme in the supplied documention or dictionary. This program does this task for you, by taking your input and displaying the hex codes as output along with the correct level adjustment. It ignores illegal letters and punctuation. Typing 'end' by itself, will stop the program. I have modified the program to allow the program, through the remote control option, to allow me to enter the text and test it until I have it sounding just right. If you want a copy of this program, let me know.

Hero 2000 News:

Nobody has sent me anything this month.   Perhaps I should have
included my address and phone number:
Greg Oliver
Route 2 Box 154 B
Mansfield, TX 76063
(817) 473-0035

Homebrew News:

Ditto!

Club News:

Still working on the Bulletin Board, so nothing new to report on
its progress. We have an abundance of money in the treasury.
What we need is some suggestions from YOU what we should be doing
with it.   We are, after all, a nonprofit club.   And sitting on
over $1,000.00 doesn't look good with the IRS! Any ideas will be
greatly appreciated.

Program of the Month:

```
5 REM TXT2SPE.BAS - CONVERT INPUT TO HEX BYTES FOR HERO I SPEECH
9 REM FUNCTION TO CONVERT HEX$ (00-FF) TO DECIMAL (0-255)
10 HX$="0123456789ABCDEF"
11 DEF FNDEC(X$)=((INSTR(HX$,LEFT$(X$,1))-1)*16+INSTR(HX$,RIGHT$(X$,1))-1)
12 DIM A$(100),B$(100)
13 REM BUILD TABLE OF PHOENEMES : MAX IS MAXIMUM NUMBER IN THE TABLE
20 MAX=1
30 READ A$(MAX),B$(MAX)
40 IF A$(MAX)<>"XXX" THEN MAX=MAX+1 : GOTO 30 ELSE MAX=MAX-1
49 REM READ TEXT INTO X$ : CONVERT TO UPPER-CASE
50 LINE INPUT "Enter TEXT to convert? ";X$
60 FOR I=1 TO LEN(X$)
70 J$=MID$(X$,I,1)
75 IF J$>="a" AND J$<="z" THEN MID$(X$,I,1)=CHR$(ASC(J$) XOR 32)
80 NEXT I
84 REM KEY WORD TO EXIT IS 'END'
85 IF X$="END" THEN END
90 REM BEGIN CONVERSION
99 REM TXTPTR IS POINTER TO CURRENT POINT IN X$
100 TXTPTR=1
104 REM LEVEL IS CURRENT AUDIO LEVEL (1-4)
105 LEVEL=0
106 IF MID$(X$,TXTPTR,1)<"1" OR MID$(X$,TXTPTR,1)>"4" THEN GOTO 110
107 LEVEL=VAL(MID$(X$,TXTPTR,1))-1
108 GOTO 140
109 REM TABPTR IS POINTER TO PHOENEME TABLE
110 TABPTR=0
120 TABPTR=TABPTR+1
129 REM IF END OF PHOENEME TABLE IS PASSED, SKIP TO NEXT LETTER IN X$
130 IF TABPTR<=MAX THEN GOTO 200
```