

THE ROBOT COMPANION

the newsletter of the
Dallas Personal Robotics Group

December, 1987

***** NOTICE *****

Due to the holidays, it was voted at the last meeting to move the December meeting to the SECOND Saturday (Dec. 12th). The normal 3rd Saturday schedule will resume in January.

Notice to members: Renewal time is coming up for many of us. The mailing label on your newsletter now contains the expiration date of your membership. If you do not renew your membership within 1 month of this date, your name will be removed from the mailing list. For example, if the date on the label is JAN88, then January will be your last newsletter unless you renew by JAN 31, 1988.

NOVEMBER MEETING MINUTES

- As planned, Walter Bryant displayed a videotape of his HERO 2000, Seldon, getting his dog to do tricks. Congratulations Walter for an original idea, and I hope to get the program into the library soon. Also, we should be starting a video-tape library of such demonstrations "real soon now".
- Bev Bryant demonstrated her work-in-progress of a program allowing two HERO 2000 robots to communicate "verbally", using a hybrid of morse code (dots and dashes) and RS-232 (ASCII characters, framed format, parity, etc.). Now, people, let's get some ideas for using this system for a practical (or at least entertaining) project!
- Chris Hamilton, a fairly new member, displayed a collection of robotics formulas, drawings, and technical data that he and his wife are gathering up to use for a formal presentation or educational program. The material is taken from many different books, primarily on industrial robotics. We're anxious to see the progress on this -- it could be very useful for people new to robotics.
- Stan Spielbusch showed the progress made on his homebrew robot, Bandit. The top of the base section has been added, and a Tandy 200 computer is being used as a terminal for console I/O.

- *** WELCOME *** new members :
 - David & Sunny Jellison, of Huntsville, Alabama.
 - Larry Karn, of Brazil, Indiana.
 - Gary McDonald, of Garland, TX.
 - Richard Howell, of Bedford, TX. Richard is the president of the Mid-cities IBM-PC user's group, and has requested representatives of our group to come to their meeting in January and give a robotics demonstration. This will be a great opportunity to "spread the word" of personal robotics and let more people know that a group like ours exists. Be at the next meeting for details.

DECEMBER MEETING AGENDA

The December meeting will be held on Dec. 12, 3:33 PM, at the Heath/Zenith store, 12022-C Garland Rd, Dallas. The scheduled activities include:

Copies of the HERO-GRAM, a newsletter published by the Hero Resource Exchange, will be available. This group in Richmond, Virginia has been active for a couple years, and they sent a copy of their back issues to the Heathkit store. Their newsletter is fairly impressive as a source of programs, and includes several mentions of third-party software and hardware vendors. I plan to correspond with their president and hopefully arrange an "information exchange". If you wish to contact them directly, write to: Walter Glod, 10802 Condrey Ridge Court, Richmond, VA 23236. They appear to be selling back-issue sets for \$4.00 (about 50 pages).

By the way, back issues of our own newsletter are available, too. I have 2 sets; Pre-1987 issue set (starting with the very first one), and now a complete 1987 issue set. The sets are \$3.00 each (to cover printing costs). Add \$1.00 if ordering by mail. Send orders to Stan Spielbusch (address below).

Due to the short notice of this meeting (and thus a quickly-published newsletter), a formal agenda has not been prepared. We will probably discuss the planned demonstration at the IBM-PC group. If anyone has any ideas, let us know.

FROM THE LIBRARY

by Stan Spielbusch, Librarian

Andres Vallejo Kynast, of Columbia, South America, has sent a letter and a couple short assembler programs for the HERO 1. His letter, along with the programs NOISE and SECURITY, are printed below. Thanks, Andres, for your interest! I hope we can be of help to you!

If you have programs to submit, put them on an MS-DOS format disk (double sided, standard format) and bring it to the meeting or send to:

Stan Spielbusch
2404 Via Barcelona
Carrollton, TX 75006

***** Please ***** include a description of the program, either as comments in the program or as a separate .DOC file. I don't have the time or patience to study each program to figure out what it does!

When you submit a disk, you receive credit for 1 disk in return. Let us know which one(s) you want, or if you just want your original disk back.

We currently have 2 disks in the library -- a combination HERO-1 and HERO-2000 disk (all programs in BASIC, text format), and a HERO-1 Assembler disk (see October issue for details).

If you want a copy of a disk, the best way is to bring a blank, formatted PC-DOS/MS-DOS disk to the meeting and either trade with me there or copy a disk yourself using one of the Heathkit computers. If you forget to bring a disk, we will have to collect \$2.00 per disk. Hard-copy listings of the programs will soon be available. Mail-order -- \$3.00 per disk. Send orders to me (address above).

Letter from Andrés:

Dear Stan:

I was very happy when I received the last newsletter (October 1987), in which you told that you wanted to hear from everyone, who is working with robotics (it was also very interesting). So that's is what I'm doing:

I want to make my thesis of Industrial Engineering in robotics, so I will use my friend HERO as a prototype of an Industrial robot to build a manual for factories and showing fundamentals in Robotics. In that way people can think in the benefits of using robots in assembly lines. So if someone has any idea about it, I will really appreciate all of them.

I think the great problem in robotics is not the lack of hardware (we don't need platinum-iridium brains for the moment) but the software, we not have a "SPEAKSTAR", "SECURITY 123", "AUTOCLEAN" "or "HERO-DOS". So we are in the first step of a great new field. This magazine is the "BYTE" in the robotics of tomorrow, so we have to keep on working. The first programmes in computers were as simple as the one we have, but they learned how to do things and they become great ones. So keep on working, the fun is just beginning !

Enclosed, I'm sending a small programm and I want also to receive the HERO 1 ASM disk and Ed Rivers' 6800 Assembler for the IBM PC (if this is only one disk, please send me the HERO1 BASIC disk too). I enclose the 6 dollars too.

Thank you very much !

Andres Vallejo Kynast

Carrera 13, No. 101-56
Bogota, 8 Colombia
South America

NOISE program:

```
;This is a very short programm but it can be
;of interest and give you more ideas.
;It makes Hero "speak" in respond to room noise
;*** by Andres Vallejo Kynast ***
;*** Bogota, Colombia      ***
;
;
42      ; Enable Sound Detector
71C240  ; Speak cont. what is on Sense Board
20FB    ; Jump back
;
;You may also change the ESD (42) to ELD (41)
```

SECURITY program:

```
;Another security programm !
;But this is not ready, I want that it can be disable
;with a 3 digits code: 3-6-9. But I don't know how.
;Maybe someone can help !
;
;*** by Andres Vallejo Kynast ***
;*** Bogota, Colombia ***
;see also the asm version: SECURITY.ASM
;
0100 BDF7E5 Jsr Outstr
(DIS) 00 -
      00 -
      77 A
      3E V
      00
      80 .
0109 720040 Speak wait 0040
      BDF64E JSR redis
      BDF7E5 JSR outstr
      4E C
      1D o
      3D d
      4F e
      00 -
      80 .
0118 BDF64E JSR Redis
      BDF7E5 JSR Outstr
      00 -
      00 -
      09 =
      79 3
      5F 6
      F3 9.
      8500AF Pause
      83
      7E0150 JMP Main
0040 0621293E "A1 AY Y" (or YOUR NAME !)
      0F223E "V Y1"
      082B3E3E3E "AH2 R"
      252B021202000D2A3E3E "PRESENTS"
      DFC2C0D9CAF7EBE7EAE73E "SECURITY"
      E5EBE3EADCEBD5CC033E "PROGRAMM"
0150 3F RL
      42 Enable Sound
      83 ML
      B6C240 LDA A,(C240)
      81E0 CMP A,E0 ;adjust it or the potentiometer !
      25F6 BCS Main
015A 3F RL
      72FB6B Alert
      83 ML
      8D06 BSR Kybscan
      8103 COMP A,03
      27EB BEQ Main
      20F3
0167 C67F LDA B,7F
      BDF73C JSR F73C
      39 RTS
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IN SEARCH OF

by Stan Spielbusch

Nobody seems to be looking for anything this month (except the same things mentioned last month).

HACKERS AND HOMEBREWERS

by Stan Spielbusch

(I apologize for the lack of material this month -- then again, I haven't received any articles from you, have I?).

OPINIONS & SUGGESTIONS

Send me yours.

SOURCES OF PARTS

I'm all out.

PRODUCT NEWS

Anyone interested in Neural Nets? If you have been keeping up on the trend, you probably are. In short, a neural net is a parallel-process device designed to function the same way that the human brain does. In essence, can "learn" a pattern (or many patterns), and subsequently recognize the pattern instantaneously. The number of learned patterns does not affect its speed, and it can do "best-guess" approximations on a pattern similar to, but not exactly like the ones learned. I'm sure you can imagine the applications for this in robotics, AI, etc. EDN NEWS magazine recently had a good article describing current neural net products available, and products that simulate neural networks (since a true neural net requires a vast array of processors, most research is done using simulators). These range in price from a \$130.00 software package for the IBM PC to a complete workstation with a network processor for \$25,000. Assuming that most of you would be more interested in the first product mentioned, their address is below:

Neural Systems, 2827 West 43rd Ave., Vancouver, British Columbia, Canada V6N 3H9.

Another package for the IBM, which appears to have more horsepower, is available for \$495.00 from Neuralware, 103 Buckskin Ct., Sweickley, PA 15143.

WORKSHOP

No input this month. However, I will mention that the HERO-GRAM newsletter back issues have several hardware articles. Come and get it! How about you? Has anyone out there done any HERO add-ons?

CLUB INFORMATION

The Dallas Personal Robotics Group is a non-profit organization of individuals interested in learning about personal robots, sharing ideas, working on projects, and informing the public about the world of personal robotics. We are open to anyone who has an interest in personal robotics, whether or not they currently have a robot, and whether or not they have any knowledge of robotics.

Meetings are on the 3rd Saturday of every month, at 3:33 PM, at the Heath/Zenith store, 12022-C Garland Rd, Dallas. A user's lab, with hands-on working with robots, is scheduled for the Sunday 2 weeks after the meeting. The location of the user's lab is announced at the meeting.

To become a member and receive the newsletter, have access to our program library, and be involved in our monthly clubs and user's labs, simply fill out the form below, and send it with \$10.00 to the address below. For more information about the club, write to Walter Bryant, club president (address below).

If you are interested, but not sure you want to be a member, feel free to visit our meetings. If you like, we can send you a couple sample issues of the newsletter.

Club officers:

President: Walter Bryant
Vice-president: Ed Rivers
Treasurer: Bev Bryant
Secretary: Stan Spielbusch

M E M B E R S H I P A P P L I C A T I O N

Dallas Personal Robotics Group
c/o Walter Bryant, 814 Mockingbird Circle, Lewisville, TX 75067

NAME (please print) _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

HOME PHONE (_____) _____ - _____ WORK PHONE (_____) _____ - _____

TYPE OF ROBOT (if any) _____

TYPE OF COMPUTER (if any) _____ Modem? _____ baud