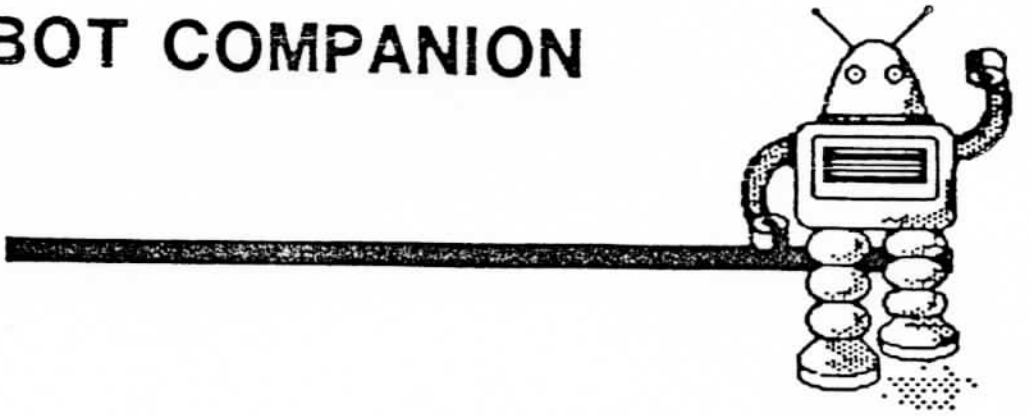
NOV 1986

THE ROBOT COMPANION



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THE DALLAS PERSONAL ROBOTICS GROUP

NEW MEETING PLACE

The next meeting will be held **Saturday, November 15 at 3:30 P.M.**. The location is the auditorium of the "Science Place 1" building at the state fair grounds. Look for the CHINA banner. For more information, call 428-7200 before Saturday.

To begin this issue, let me introduce myself. My name is Gregory Oliver. I am the proud owner of a HERO I. Ten years ago, I was the proud owner of a SWTPC 6800 home computer that I had built from a kit, one of the first in Rochester, NY. Looking at the advances in home computers in the last 10 years, and projecting that same degree of improvements into the field of robotics, we are looking at robots that can potentially do many of the mundane tasks that we really wish someone else would do. Doesn't that sound nice?

What I would like to discuss is the purpose of this newsletter. The Dallas Personal Robotics Group contains members that own HERO I's, 2000's, and some that are building theirs from scratch. This newsletter is to be a forum for each of these groups, and especially for those of you that cannot attend our monthly meetings. Unlike the computer industry, we have little in the way of published information that appears regularly. In the early days of home computers, this was also their problem. But we had newsletters. Newsletters begat magazines, and magazines proliferated to the point where most have had to specialize in one of the currently popular computers. Let's hope that robotics follows this trend.

Now, here's what you can do to help. I cannot possibly monitor all of the currently available information sources that exists. We are trying to set up a Bulletin Board Service (BBS) which will allow you to transfer information and programs to us, for publication. At the same time, you can download information and **public domain** programs for your own use. We are interested in applications that you have developed on your own that you would like to share with others. More about the BBS next issue.

A Word From The President - Walter Bryant

We should be proud of ourselves! In less than 3 Years we have developed into the largest club in the nation dedicated to presonal robotics. We have:

A) Attracted an ever growing list of club members with a very wide range of technical capacities and interests;

B) Held club meetings and user labs once a month. The meetings have had a long list of impressive speakers and technical demonstrations;

C) Held public club demonstrations, covered by newspapers, radio, and television;

D) Demonstrated an impressive list of unique robot programs and peripheral equipment created by the club rank and file;

E) A club newsletter.

What the club's priorities are

1. To have fun with personal robotics. To share the fun with all interested parties, and to learn more about the explosive new field of personal robotics!!

2. To improve our organization. Increase participation and communications between all of the club members, to develop a team spirit.

3. develop an active computer listing of what the individual club members are working on and would like us to pursue as a group.

4. Improve our newsletter with more participation form all club members. This will give us the ability to share our accomplishments with people all over the nation.

5. A club treasure -- Note: We now have an official club banking account with an impressive balance -- Report at the next club meeting.

6. To expand our "Club Computer Bulletin Board" by placing on it all club members' "robot programs", newsletters, current events, etc.

Club News:

We are now trying to update our mailing list. You must be on the list, since you are receiving this issue. If you are a current, paid-up member of DPRG or contact us, we will include you in our updated list. If, however, you are no longer interested in robotics, then let us know, so that we can remove you name from our lists. Contact "Bud" at Heathkit (214) 327-4835.

Industry News:

In the 10/86 issue of Infosystems, there is a brief note about a "voice-activated robot developed at AT&T, Murray Hill, NJ". This robot responds to such command as "Put the large red cone behind the small black cone". It is equipped with a 51-word vocabulary and uses ultrasonic range-finding to help it locate the desired object. Other projects include a robot that is learning hand-eye coordination by catching a ping-pong ball on the first bounce. This tests three-dimensional vision and real-time response. Says Russell Anderson, of AT&T, "The purpose of our research is to allow robots to act in a dynamic and changing world."

The 12/86 issue of Radio-Electronics contains a cover story that invites you to "Build the R-E robot". The basic design includes two independently driven wheels (sounds like the HERO 2000), a front mounted gripper with 1 degree of motion that can lift 10 (!) pounds, a single-board CPU based on the 80188 (PC compatible), and a speech input/output board. This is the first of a series of articles, and a lot of the system is still under development. R-E is opening a section of their BBS for those of you that are interested or are currently working on this design. Their number is (516) 293-2283. In the same issue, Mark J. Robillard finished his series on vision systems. This is the last regular article by Mark. You should write R-E and protest! His articles are going to be missed by me!

HERO I News:

If you have the BASIC rom and DEMO rom installed, you can use the program listed below to monitor your home while you are away. Upon activation, the robot counts down from 30, using the speech board, and then begin to monitor the motion detector. If you don't have the DEMO rom, remove the section that counts down. What the robot does after it detects motion is up to you. Have it call for help, ask "Who's there?", or hook it up to a wireless phone and have it call the police!

HERO 2000 News:

Here's where I need your help! Now that it is out, what are **your** experiences with its construction? Know bugs reported to us include a problem in homing the arm. It can go in the wrong direction and damage the gears! When you first test it, be sure that the power supply is **NOT HOOKED UP** and keep your hand near the ON/OFF switch! The reset key will not stop it from doing damage. Also, the encoder wheel for the gripper is being redesigned. Contact HEATHKIT for an updated disk.

HOMEBREW

This is an expression held over from those that built their computers from scratch. The same applies to those of you building robots. Again, here is where I need your input! What plans are you using? What equipment? Where did you get the parts? What do you recommend, or warn others not to buy?

```
1 REM MOTION - USE DEMO ROM FOR
2 REM NUMBERS IN COUNT DOWN
3 REM THEN SENSE MOTION
4 REM FOR USE AS BURGLAR ALARM
10 FOR I = 30 TO 1 STEP -1
20 DPR "$"
30 DPR I
31 IF I/10*10 = I THEN ON I/10 GOSUB 1010,1020,1030
32 IF I <= 9 THEN ON I GOSUB 100,200,300,400,500,600,700,800,900
40 NEXT I
42 SPE $2B81
50 DPR "$"
60 SPE "AH1RRMMD PA0"
70 IF MOT=0 THEN 70
80 SPE "YIU1U1 PA1 MU1U1VD PA0"
81 DPR "YOU"
82 DPR "$"
83 DPR "MOVED"
84 DPR "$"
90 GOTO 70
95 END
100 SPE $2B26 : RETURN
200 SPE $2B2B : RETURN
300 SPE $2B31 : RETURN
400 SPE $2B37 : RETURN
500 SPE $2B3D : RETURN
600 SPE $2B44 : RETURN
700 SPE $2B4C : RETURN
800 SPE $2B54 : RETURN
900 SPE $2B5A : RETURN
1000 SPE $215B : RETURN
1010 SPE $215B : RETURN
1020 SPE $21B4 : RETURN
1030 SPE $21FC : RETURN
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