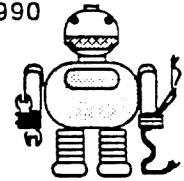


ROBOT BUILDER

March 1990



The official publication of the Robotics Society of Southern California
P.O. Box 3227, Seal Beach CA 90740, Meetings the 1st Tuesday @ 7:00 PM at MTI College

UPCOMING EVENT CALENDAR:

February 23:	<i>SynPat SP2 demonstration</i> (see article)
March 3:	<i>RSSC Robot Project Workshop</i> (see article)
March 6:	<i>RSSC March Meeting</i> , MTI College
March 25:	Computer Swap Meet at Advanced Computer Products
April 3:	RSSC April Meeting, possibly at Odetics
May 1:	RSSC May Meeting, MTI College
May 20:	Computer Swap Meet at Advanced Computer Products

FEBRUARY 6th RSSC MEETING

Election of Officers

The February 6th Robotics Society of Southern California (RSSC) meeting was attended by about 25 members. The initial discussion and society activity included the election of officers. After some arm twisting and guarantees that we wouldn't tell his wife, Tom Carroll was elected our new president. Tom has been active in the RSSC (and the previous SCRS) for over 10 years and was president for most of that time. Tom is a real asset to the RSSC, so let's not work him too hard! The other officers who were voted in and are continuing with their previously elected offices included Joe McCord as vice president, Galen Walker as secretary, and Jerry Burton as treasurer. In addition, because Tom Carroll was previously the editor of our newsletter and cannot be both president and editor, Scott MacGillivray was elected as the new editor.

Videotape Viewing

Terry Carrigan presented a videotape from a TV show on the Denning security robot. It was a very interesting tape showing the features and capabilities of this advanced robot. If anyone has a videotape of material that would be of interest to the members, by all means, bring it to the meetings!

Increased activity at work has required that Terry step down as president, and I am sure that everyone would like to thank Terry for serving as our first president and hope that his work never gets too busy that he cannot continue to participate in RSSC activities.

RSSC Robot Project

Most of the remaining meeting was spent "discussing" the members' ideas on the design of the RSSC robot. Some of the key requirements discussed include the following:

- o First, the base will be developed, second the electronics, and third software
- o Simple design to ensure project success

- o Weigh less than 50 pounds and be able to turn on its centerline
- o Provide for reasonable growth to allow future add-ons such as an arm, speech/speech recognition, and autonomous navigation
- o "TBD###!!!" computer and bus system
- o Each working group (mechanical, electrical, and software) will submit a progress report/notes from the monthly workshops for possible inclusion in the newsletter and engineering notebook
- o Retrieve a cool one from the fridge!

Jerry Burton and Don Golding provided some good recommendations for the type of bus system and a robot control language. In addition, it was agreed that Joe McCord, as vice president, would act as an overall "systems integrator" among the three working groups, ensuring an open communication flow.

We agreed to start a monthly workshop where the three working groups would begin designing our robot. Joe McCord has volunteered the use of his business as the site for our workshops. The first scheduled society workshop is Saturday, March 3rd, at 10:00 a.m. at *The Robot Company* in Costa Mesa (see map for directions). The first workshop will mainly be directed to establishing some design requirements.

It is hoped that, as we start to define the robot and the materials and components needed, we will be able to contact various manufacturers and obtain some free equipment and components. This will help immensely in reducing the cost to the membership and hopefully allow us to build a more optimal design.

We're hoping to see the entire membership at the opening workshop! This is a real opportunity to learn from the other members and work toward some actual hardware. Remember, this is your society and being at the workshop will ensure you will have an active voice in what is built.

SYNPET SP2 DEMONSTRATION

SynPet is a startup company based in Boise, Idaho, which is introducing its new SP2 robot in March. They will be in the Los Angeles area the third week of February and have contacted Tom Carroll, Scott MacGillivray, and Jerry Burton about providing a demonstration of the robot to the RSSC on Friday, February 23rd. The time and location of the demonstration is 7:00 p.m. at MTI College. We are expecting newspaper and possibly television coverage of this robot introduction/demo and of RSSC. If you are unable to attend the demonstration and would like further information on the SynPet SP2, their address and phone number are 7225 Franklin Road, Boise, Idaho, 83709, (208)376-0303.

The SynPet SP2 is very complete robot (sans arm) that provides a large variety of functions and is driven by an IBM PC XT (or optional AT) equivalent computer. A variety of hardware and software options and upgrades are available, with the basic unit starting at \$7,395. This robot is getting close to being a practical and useable

personal/home robot and is definitely worth your time in getting an up-close inspection of this new robot.

NEWSLETTER AND RESOURCE DIRECTORY

This is my first month as the editor of the newsletter and I strongly encourage the promotion of any comments and corrections. In addition, I need technical material on any projects being conducted by our members or any other sources! I know many members don't want to keep hearing about my six-wheeled "equipment rack" robot. This is your society, so tell us what you are working on (or thinking about working on . . .)! To help make things easier on me, I would appreciate that any computer-generated text be compatible with WordPerfect 5.0 or 5.1 on an IBM PC AT. I can read both 5-1/4- (360k and 1.2M) and 3-1/2- (720k and 1.44M) inch disks.

I have started to compile a resource directory of companies to aid our members in the search of products, materials, and services related to developing and constructing robots. If you have a favorite source for a motor, IC, software, or whatever, please tell me at the meetings or send me the name and address of the company (along with a description of what products they have) that our members would find valuable to:

Robotics Society of Southern California
P.O. Box 3227
Seal Beach, CA 90740
Attn: Resource Directory Editor

I hope to have a preliminary copy of the Directory to distribute at the March 6th meeting.

MARCH MEETING AGENDA (TENTATIVE)

- 1) Business agenda
- 2) Discussion of workshop results and of the RSSC robot design
- 3) Resource Directory distribution?
- 4) RAM (Random Access Meeting) - bring something of interest to share with the membership!

I hope to see the entire membership there, along with any interested individuals or business representatives!

Scott MacGillivray, Editor

ROBOTICS SOCIETY
of Southern California
P.O. BOX 3227, SEAL BEACH, CA 90740

Dear Robotics Enthusiast:

If you have been receiving the Robotics Society newsletter, THE ROBOT BUILDER, for the past several months then you know that the group is now officially reestablished with regular meetings, elected officers, a structured meeting format, and a series of upcoming programs designed to establish a Robotics Society standard as a basis for anyone wishing to build a robot.

Because we now need to streamline the organization and control our funds for Society projects it is necessary to reduce our monthly printing and postage requirements by mailing the newsletter only to paid up members or newsletter subscribers. If you are not a paid up member but would like to continue to receive the newsletter for its information value, which will be substantial as the organization grows and matures, then you may purchase a newsletter subscription for \$15.00 per year. Please fill out the form at the bottom of this page, clip it out, and send it to the Robotics Society mailing address: P.O. Box 3227, Seal Beach, CA 90740. If you are not a paid up member or a subscriber this will be the last newsletter you will receive.

A NOTE TO MEMBERS: If you have handouts for a presentation or an article of particular interest to members and would like to share it, please make approximately 30 copies (this is about our average monthly attendance) in advance and bring them to the meeting. This will greatly reduce last minute confusion and time required for me to make copies, collate, and staple things together on meeting nights. Thank you for your cooperation.

Sincerely,

Galen Walker
Secretary, Robotics Society of Southern California

YES!, send me a one year subscription to: THE ROBOT BUILDER
Enclosed is my check for \$15.00 made out to:

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ROBOTICS SOCIETY PROJECT DEVELOPMENT COMMITTEE REPORT

The committee met on Saturday, 3 March 1990, at The Robot Company shop in Costa Mesa. Committee Chairman Joe McCord called the meeting to order at 1015. Thirteen members were present. By sub-committee, they were:

ELECTRICAL DESIGN SUB-COMMITTEE: Bob Angelo, Chairman; Lee La Fevre, Bob Peringer, Garren Davis.

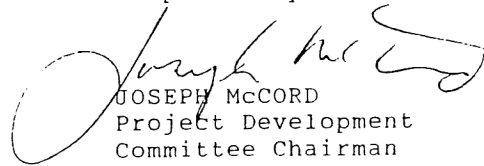
MECHANICAL SUB-COMMITTEE: Mark Frank, Chairman; Tom Carroll, Scott Macgillivray, John Sprinkle.

SOFTWARE COMMITTEE: Don Golding, Chairman; Jerry Burton, Roland Kolevek, Ric Molen, George Ronnquist.

Following discussion, the Committee decided on the following parameters for the project:

- BASE: The base of the robot will be 20" X 20" on an octagonal cut. There will be two drive wheels across the center line and the preponderance of the weight will be located behind this same center line. The two drive wheels also will be the load bearing wheels while one caster wheel, at the rear, will float as the drive wheels turn.
- WEIGHT: The final weight was left open but will be in the neighborhood of 50#.
- WHEELS: Wheels will be 8 to 10" in diameter, rubber tires on a plastic interior.
- POWER: Enough power to carry itself, a module fitted on top, and be able to easily move over low-pile or industrial grade carpet, and over a 3/4" obstacle.
- SYSTEM: AT Bus (donated by Dan Golding). Card cage & basic computer donated by Bob Angelo.
- HEIGHT: Base approximately 20"; modules as necessary.
- CON-
STRUCTION
- SITE: The Robot Company, 881 W. 18th St., Costa Mesa.

Respectfully submitted,


JOSEPH McCORD
Project Development
Committee Chairman
6 March 1990