

DECEMBER 2003 MINUTES

This month's meeting was attended by 20 people, three robots and a ladybug that wandered in by mistake.

Jeff Valentine did a show & tell on the new wheel hubs he is developing, which will soon be available for sale on his website, chaserrobotics.com.

Dennis Draheim did a show & tell about his robot-in-progress which now incorporates an encoder board made by Dale Wheat. Dennis also demo'd the desktop RC tank he won at the last DPRG contest.

The DPRG Treasurer, Martin Meier, gave a quick financial report. The DPRG currently has \$2300 in our bank account, after paying for lawyer and filing fees for Incorporation with the State of Texas. (The fees for filing for 501c3 status with the IRS will be paid during the 2004 budget.) A quick vote was taken to reaffirm an earlier vote to pay Modern Assemblies the sum of \$25/month, in quarterly payments, for electrical and other services used at the warehouse in Garland.

Vickie Taylor gave an update on the t-shirts, saying that the project had been delayed slightly but she expected to have the order sent to the printers within the next week, possibly two.

Jon Williams gave a quick overview of some of the new Parallax products now available and handed out the new 2004 Parallax catalogs. Jon gave a very interesting historic review of the BasicStamp I and showed us a new adapter Parallax is offering for under \$5 that now allows Windows programming to this device. There was considerable interest in this new adapter expressed by those attending the meeting. (*Secretary Note : Jon also made a donation to the DPRG library, but I was wrapped up in what he was saying about the new products and didn't write down the title of the book. I will ask the DPRG librarian, Charlie Youngblood, to post a notice about it and note the title in these Minutes, at a later date.)

Ron Grant gave demo of his two wheeled balancing robot project, which he said was inspired by the work of David Anderson. Ron explained the operational theory behind his project and told us about some of the problems he is currently trying to solve.

The election of new DPRG officers/directors for 2004 was very brief. No new candidates were offered for any of the offices, so the following individuals ran unopposed and were elected by unanimous decision:

President : John Drummond
Vice President: Brian Merrit
Secretary : Bill Cole
Treasurer : Martin Meier
Librarian : Charlie Youngblood

Congratulations to all.

Frank Elia was self-elected as the official DPRG Officer's PITA (Pain In The A.), stating that he felt this was where his skills would most benefit the club. Everyone present seemed to agree.

The final paperwork for filing for Incorporation with the State of Texas, the first of two steps in achieving 501c3 status, will be mailed later this week. The filing was delayed until after the 2004 Officers' election so that the new officers could be named in the filing. A PO Box has been selected by the 501c3 committee to be used as the official DPRG address, which will be posted to the DPRG list at a later date. (The first year fees for this service are included in the 501c3 finance package approved by vote at the September meeting.)

Bill Cole
DPRG Secretary

NOVEMBER 2003 MINUTES

The Science Place, Dallas Tx.
November 8th, 12:00- 2:00 PM

6 Guests / 32 Members / 4 Robots

A copy of a new magazine "Servo, The Magazine for Robots, By Robots" was made available to all in attendance.

Lecture on PID controls for robots was presented by club member Rick Bickle. Subtopics and highlights of the lecture included:

- Why we need PID
- PWM & duty cycle
- H bridge motor driver circuitry
- Optical encoder circuitry
- Common open and closed loop control systems
- PID control loop systems, proportional, integral and derivative terms explained
- over / under / critical damping examples
- PID implementation, tuning variables, error terms
- PID pitfalls, integral windup, PWM overflow
- PID tuning, mathematical and brute force methods
- Question and answer period

Announcements:

Randy Dumse will have a camera running on his robot during the November 11th talent show/table top/mini sumo contest to be projected on a TV monitor.

The new T- shirt design will be at the t-shirt manufacturer this month. With new T-shirts/polos should be ready for sale in January.

There is a fire sale on the remaining stock of old T-shirts/Polos. Get with Vicki Taylor (hvtaylor@iwon.com) if interested-sizes available are "L".

John Drummond's lawyer is currently reviewing the 501c documentation. It will be sent out this month for approval by the Government Non-profit Agency to complete it. Approximately 30-60 days.

November 15th Contest: Science Place 12:00-2:00 pm. 3 Judges arranged for Dave Peterson, Martin Meier, and Robert

11:00 am- Judge Leaders: Rick Bickle and Ralph Tenny will train the judges an hour before competition.

9:00 am - John Drummond, Brian Merritt, Vicki Taylor and Martin Meier will do transportation of the platforms-Table Top and Sumo Ring.

Video - Cindy Rivers

Timer: John Drummond

Scorekeeper - Teresa Trotman

Sign up Table - John Drummond and Vicki Taylor

MC- Kip Moravec (Is also bringing award certificates)

Members approved \$100 funds, to have some more Tanner's certificates purchased for prizes. All contestants plan on being there 1 hr ahead of time for registration.

"Cool Blue" on Main in Deep Ellum will be investigated for the lunch afterwards.

2004 Officer Nominations:

Pres: John Drummond

VP: Frank Elia and Brian Merritt (2 officers are being considered for this office in order to support each other).

Treasurer: Martin Meier

Librarian: Charlie Youngblood and Bill Cole (2 officers are being considered for this office to combine support).

Secretary: Still Open for nominations

Somebody is needed to handle routine Club PR and Prize Committee.

Contest Committee - Kip Moravec

Show & Tell

Club member, Karim Virani showed the dance floor material that might be used in future robot courses. He demonstrated how the surface of the material could be made less reflective by scuffing it with a sander

Club member, David Martineau showed his tether-controlled robot.

Member demo of ELF was shown off which stands for Electronic Line Follower.

Meeting attendees were invited to get together at "Coyote Ugly" immediately after the close of the meeting

Thanks go to Chris Yahn for doing the meeting minutes for me. I apologize for any names not complete or any errors ;) So many members to keep up with, a good thing.

Vicki Taylor
Vice President

OCTOBER 2003 MINUTES

11 October 2003

We all stood outside of the DPRG World HQ until Vicki arrived with a key. To pass the time, some calculated the odds of having a random group of N members that would not include a key-toting member.

Vicki had some additional keys made to decrease these odds in the future - present key bearing members are Martin, Kip, Dale, Bill, Vicki, Brian, and Charlie.

It was voted that November's contest will include Table Top events, Mini-Sumo, and a new Talent Show competition. Since there are presently no rules for a Talent Show event, applause will determine the winner, unless someone has a better idea that can be implemented before the event. If someone wants/needs course elements, either bring them yourself or let the contest committee know with plenty of time before the contest. I don't think it will be practical to bring the full-sized course for only one or two applicants, though. The idea for Talent Show is for a robot demonstration that doesn't fit into present contests.

Martin Meier will figure out how double elimination works, so we don't have confusion at this year's Mini Sumo contest.

The group voted to go forward with Vicki's drawing for the 20th anniversary DPRG shirts.

Glenn Pipe told the group about the next SWARC event on the 25th of October. If any DPRG members want to represent the DPRG, please contact Glenn or Dale Wheat, who will be attending.

Dennis Draheim will be attending MechWars in Minneapolis.

The new rules for RoboRama events were approved by a 15-0 vote. Rick Bickle will work on the Judge's forms that will take the new rules into account. We will need to update the website with the new rules for the RoboRama contests.

The club voted to spend up to \$150 for a lawyer to start 501(c)(3) efforts.

John Mianowski, with the North Texas Battle Group, told the DPRG about his group, and showed a video presentation of his group's warships.

A long show 'n tell ensued, with many robots and their humans.

This meeting was a first for several reasons - it was the first at DPRG World HQ, (aka the warehouse), it was the first meeting with robots running around the recently completed Robot Stadium for show 'n tell, and it was the first webcast of a DPRG meeting, with real-time IRC chat. Many thanks to David P. Anderson and R. Steve Rainwater for making this happen. Also, many thanks to the people who logged in - the distance winner was Giuseppe Marullo, who joined us from Italy. The DPRG has truly gone global!

Jeff Koenig
DPRG President

AUGUST 2003 MINUTES

[9 August 2003 12:00 PM]

2 Guests / 39 Members / 4 Robots

Briefly talked about The Science Place's Segway, which TSP is now allowing visitors to test ride. Jeff said he rode the Segway and did not fall down (a claim that met with considerable skepticism). The Electronic Exhibit being given at The Science Place at 2:30pm that afternoon was also mentioned.

The 20th Anniversary DPRG T-Shirt Design contest was discussed. No deadline for the contest was set. A suggestion of also offering bumper stickers and coffee mugs decorated with the winning design was suggested and met with general approval, but more information on costs and required production time will be needed before a vote can be made. It was decided to continue the discussion on the DPRG List.

A presentation was made by Bill Cole of the Non-Profit Investigation Committee, which was formed in March to research the benefits, processes and fees associated with formally filing as a tax-exempt non-profit organization. The presentation ended with the recommendation that the DPRG file Articles of Incorporation with the State of Texas and then file for Federal 501c3 Tax-Exempt status with the IRS. A resolution was passed calling for a formal vote on the committee's recommendations; the voting period to end at the close of September's meeting, with all members who do not vote being counted as abstaining. Ballots were handed out at the meeting and votes were collected; email proxy votes will be solicited during the next few weeks and the final tally of votes will be presented at the September meeting. All questions or issues should be directed to wecole@ev1.net

A presentation was made by Bill Boyer of the Rules Committee. Although a final draft of the committee's recommendations is not yet available, several of the main issues were discussed, such as only paid members may qualify for contest prizes (excluding certificates), judges being disqualified to participate at events they judge, and revisions of the size/weight rules. The final draft of recommendations will be posted on the DPRG website. The recommendations of the committee, if accepted by the membership, will not take effect until 2004. All questions or issues should be directed to rules@dprg.org.

A discussion was made regarding the desire of some members to expand our contests to include radio controlled robots. The issue was tabled for discussion on the DPRG List.

RoboRama is next month on the 27th. Vickie has already alerted the local media about the event. A call was made for prizes. Doug Evens of the Austin Robotics Group offered to donate a prize or two.

The printing certificates for contests was mentioned but the issue was tabled to the DPRG List for discussion.

RBNO WEST (Grand Prairie) - Not a lot of people yet, but lots of work is getting done and THEY have air conditioning.

RBNO @ Warehouse (Garland) - Most of the insulation is up and the computer room is nearly back to normal. A call was made for handtool donations. Using the current meter loaned to the club last month it was determined that the electrical cost for the computer room air conditioning will run between \$17-\$22/month during peak months. A resolution was made and passed to pay Modern Assemblies the sum of \$25/month to cover the DPRG's total electrical usage costs. Charlie Youngblood stated that the hardware library is ready for checkout and that a photo album inventory of the library will be brought to the meetings so that members who can not make RBNO can select items they would like to check out. All questions or donations to the library should be directed to Charlie.

R. Steve Rainwater spoke about the donation by VIA Technologies of their high-end 1 GHz EPIA M10000 Mini-ITX motherboard made to the club, which will be added to the hardware library.

The highlight of the meeting was a very informative and entertaining presentation by David Anderson about his balancing two-wheel robot and his three wheel robot, SR04 (bane of many Can-Can competitors). The use of video and live demo's in his presentation kept the pace fresh and well balanced (pardon the pun). David recommends that everyone who wants to build similar robots visit [his website](#) for detailed information about his work.

Bill Cole
DPRG Secretary

JULY 2003 MINUTES

The July 2003 meeting was the [2003 annual BBQ](#) and swap meet held at John Drummond's property.

Special thanks go out to all the DPRG members, friends, and family who made July's cookout meeting a tremendous success!

Despite the scorching temperatures, we had a huge turnout. There was enough food and beverages to last not only lunch but dinner, too, for the many who stayed.

Bill James' custom-built beverage dispenser, custom-made tap handles and custom-made beverages were very popular.

There was an entire room of John's house devoted to desserts, for those who left some room after visiting the room devoted to hot dogs, bratwursts, hamburgers, salads, chips, sodas, etcetera.

The aisle of John's barn housed the swap meet items, and literally hundreds of pounds of highly engineered artifacts changed hands.

Earl brought the 150 lb. Sumo ring, which will be moved to the DPRG warehouse/clubhouse/group home. He also donated a large box of Frisbees. Hapi the Greyhound enjoyed chasing them around, as did Sirius the Golden Retriever. Petri the Chihuahua probably wished the Frisbees were a bit smaller, though.

Ed Koffeman lent an A.C. power meter so we can figure out how much energy the warehouse's air conditioner is using, so we can compensate Mike.

John's swimming pool was very, very popular.

This has to have been the longest meeting in DPRG history - It officially started at noon, and people finally left at around 8:30.

Jeff Koenig
DPRG President

JUNE 2003 MINUTES

[14 Jun 2003 12:00 PM]

36 members / 3 robots present

Called to Meeting: Jeff Koenig, Pres.

ANNOUNCEMENTS/COMMITTEE MEETING UPDATES

RULES COMMITTEE: Present any competition rule changes for vote at the July Meeting.

BBQ: Next month, July 12th- SWAP MEETING- T-SHIRT DESIGN CONTEST. The official SUMA Ring will be on display for contests. Presentation of Business Committee options summary.

NEW MEMBERS

BJ - who was so kind to help in the demo by Dale Wheat last month.

TREASURER REPORT

Bank account has \$2,880.10 to date.

Purchases approved this quarter:

\$200.00 in Gift Certificates 8x\$25.00

(*To be used for prizes and Demo/Presentation Honorariums)

Upgrades of DPRG (Workshop/Lab/Clubhouse?)

MOTION for VOTE: Majority Rule

\$100.00 Purchases: Whiteboards, PC, Webcam

Approved \$100.00 for Expenses for the future Petty Cash - Air Condition Project

Approved \$100.00 for constructing a wall around the contest practice platform

Set funds aside for air condition project for entry & lab, figure discussed \$175 materials for equipment. Monthly costs \$10.00-20.00.

RBNO set to do final details. Confirmation of plans with Mike Dodson.

PRESENTATION

Randy Dumse, New Micros "Programming in Real Time"

Big Thanks to Randy for doing such a good job! Still with jet lag from rushing back from CA to do the show. We are working on have his presentation on the web page soon-GREAT STUFF!.

FINAL BUSINESS

RENEWED LEASE for another 6 months with the Science Place.

OCTOBER MEETING, Motion by Kip Morevec, set for the Workshop @ the Lab/Workshop in Garland.

SCIENCE PLACE NEWS: Rita from the Science Place doing Internship for NASA this summer. To send "congrats" card. (*she is the one that backs up Summer, making sure we have anything before the contest).

CONTEST Designs for the T-shirt will be decided at the next meeting. DPRG's 20th anniversary next year.

NOTE: Battlebots Club Meeting interfering with guests attendance to DPRG meetings. They are prospecting moving their meeting to the last Saturday of the month. Hope to see our friends soon.

SHOW & TELL

Dale Wheat showed off his encoders on his bot.

Travis showed his new robot platform he had just finished
*for the September Contest?

Vicki Taylor
Vice President

MAY 2003 MINUTES

[May 10th 2003]

8 Guests / 30 Members / 5 Robots

Summer of TSP demonstrated the Segway Human Transporter - Very Cool (some latecomers missed seeing this - sorry maybe we can have another demo soon) <http://www.segway.com/>. Runs for 15 miles or 8 hrs @ 11 mph Weight: 65#. Every features has 3x redundancy 4 sensors on the stand to monitor passenger. Steering controlled on the left handle bar with 3 keys for various speeds. Handles driver of 100 - 300#

Welcome to visitors

New Micros motors available for members who missed last months meeting

Upcoming meetings - Some good stuff!

June 14th - Randy Dumse - "Programming in Real Time"

July 12th - BBQ

August 9th - David P. Anderson - SRO4, BalanceBot and Next Bot Details

RBNO - This Tuesday's meal - Tacos & Enchiladas (so good last time-bring sodas if unsure what to bring). Update by Charlie Youngblood and Bill Cole - Working to finish out (5) Workstations and now have the camera to start the video feed for non-attending members. Every member to have their own Mailbox to keep their projects at the warehouse

Tapes of last Contest available

New Member forms available and Maps to lunch out "afterwards" - (ANGRY DOG Attendance 16!)

Presentation by Dale Wheat - Interfacing with RC Servo Motors, with hands on demo. Thanks Dale - you did a great job! We really enjoyed it. Thanks to Cindy for making the visual possible. She was able to project his detail work up on a screen so everyone could see! No bad seats in the house. <http://dalewheat.com/robots/servos.php> (For people who missed out, find the show here) Travis and BJ got to do a hands on servo experience. (Great job guys!)

We used every minute of our meeting time with fun filled robo hours, glad to say I had to move the crowd out to the hall. It was a good one for those who missed. We missed you Jeff, and hope your back next time. We're excited to have Randy Dumse in to do "Real Time" programming. Don't be late! You don't want to miss anything. I've wanted to get to Coyote Ugly - think we'll try it at the next meeting's lunch (just 3 buildings down from Angry Dog). See you there!

Vicki Taylor
Vice President

APRIL 2003 MINUTES

[3-8-03 12:15 PM]

22 members present

Reminder: Table-top contest is next week (3-15-03)

Date for Robo-Rama is confirmed as April 5th, 2003

12:20 PM Judges for table-top, fire-fighting, sumo, & robo-rama contests confirmed.

12:30 PM Prize distribution discussed: RoboRama requires 4 first place, 4 second place, 4 third place, and one 'best engineered' prize. To conserve prizes, it was decided to combine all of Table-Top into one prize class (motion was voted and passed). Table Top will now require 3 first place, 3 second place, 3 third place prizes. Sumo will require three prizes. Fire-Fighting will require three prizes. A minimum of 28 prizes will be needed.

1:00 PM Prizes will be pooled and distributed at the RBNO.

1:05 PM Bill Cole donated three large rolls of solder to be used as prizes!

1:15 PM Suggestion made to pay professional speakers to give technical presentations at meetings.

1:20 PM Ralph Tenny gave a presentation on Oscilloscope use.

Martin Meier

Treasurer

FEBRUARY 2003 MINUTES

[08-Feb-2003]

36 attending / 26 Members / 3 robots

New Guest Call - 5 Intros

Guests Signing book: William Cole (new member), Trupti Patel, John Ralston DPRG appreciate all new members and guests attending.

Motion for a new course paper needing to be purchased for upcoming contests by Jeff Koenig, seconded by Ed Koffeman. Jeff is to get with John Caldwell to find lead on purchasing the supplies.

Treasury Report: Balance is approximately \$2000.00. Call for members to pay dues. There are only 22 members listed as paid for this year. Members discussed if we should convert from Personal acct. (under Clay's name) or submit for a 501 Nonprofit bank account. It was decided to stay with the account under Clay's bank.

Announcement Table Top/Firefighting contest is next month (March 15th 12-2:00 pm @ Science Place). Clay will contact Trinity Officials to set us up as a pre-qualifier for their contest. DPRG discussed the condition of the Trinity course, which was taken to the warehouse. The Course is in good condition, but needing paint - it will be done at the RBNO Tuesday-2/11/03. Judges requested for upcoming contests - Volunteers were Ralph Tenny, Brian Lee, Martin Meier, Vicki Taylor, Eric Yundt responding.

Status of the Prize donation round up. Letters to go out by 2/9/03.

Update for the RoboramaB changed to 9/20/03 in order to not conflict with the State Fair 2003.

Jeff Koenig brought up having the Asimo Tour include Dallas. http://asimo.honda.com/asimo_on_tour.asp Jeff is trying to contact them to schedule at the science place.

Motion to start having committees groups at the meetings for 15 minute sessions: Groups based: RBNO, Contests, MicroMouse, Guests Question group, etc.

Update on MicroMouse- 1200 holes needing to be drilled. Kip to look into contracting this out.

RBNO update. This Tuesday, 2/11/03 we will be putting 2 remaining gutters up and paint the Trinity course. Vicki Taylor will bring chili. All that have not attended yet, come join us.

Call for members to pay dues.

Announcement: Lost oscilloscope, donated by one of the members, if any member is knowledgeable of its location please get with Jeff Koenig.

Workshop status: Earl Bollinger to set 2 dates of his convenience to do the workshop at the warehouse.

National Engineer Volunteers Needed: 2/16/03 (12-4:00 pm) - Frank Elia, Vicki Taylor, Jeff Koenig volunteers so far. Banner to be picked up from John Drummond at RBNO

Motion for Business cards to be made/purchased by Charlie Youngblood for the event and others.

Mentioned that the sign - acrylic with logo/DPRG sign is missing as well. If anyone knows it's whereabouts please get with Jeff Koenig.

Shirts for Sale - get with Jeff Koenig

Show/Tell

Demo of Bread Boarding from Frank Elia. Thanks Frank - very fun.

Lunch at the Angry Dog - 7 participating.

Vicki Taylor

Vice President

JANUARY 2003 MINUTES

Estimate of Attending: 45-50 (10 visitors) (3-new members)

Discussed Science Place welcome. Summer attended offering tickets to the IMAX and welcomed the DPRG to the Science Place.

We have The Science Place booked through June, and can renew after that.

Reminder: * We are having an RBNO at the DPRG Warehouse every Tuesday night at 6:00P.M. Everyone's invited.

Note: * (per Jeff Koenig) I understand that RBNOs are still held every Thursday night at Barry Jordan's house. Please contact Barry or Eric Yundt if you'd like to attend. Here is the schedule of events for 2003.

Announcements made by J. Koenig:

- DPRG is looking for Trinity Contest platform.
- Welcome Visitors
- Member Due are due
- RBNO Reminder/Updates
- Call for Volunteers to do Presentations - discussed what topics the club would be interested in.
- Charlie showed the library

2003 Calendar Schedule Planned and discussed.

January: 11th Meeting (mentioned here for completeness)

February: 8th Meeting

March: 8th Meeting

March: 15th Tabletop and Firefighting contest

April: 5th RoboRama 03A

April: 12th Meeting

May: 10th Meeting

June: 14th Meeting

July: 12th MeetingBBQ

August: 9th Meeting

Sept: 13th Meeting

Sept: 27th RoboRama 03B

NOTE! RoboRama 03B may have to change dates, due to the Texas State Fair. (*CHANGED DUE TO CONFLICT TO THE 20TH)

Oct: 11th Meeting

Nov: 8th Meeting

Nov: 15th or 22nd Talent Show - Walking Robots

Dec: 13th Meeting

TO CHECK OUT WHAT OTHER EVENTS WOULD CONFLICT WITH THIS SCHEDULE: (Call to all club members on who will attend other events around the country, that would not allow a club member to participate in DPRG events.

Retired to Swap Meeting

Out-Of-Town Scheduled Events

- AHRC Robot Rally- Saturday, February 15, 2003, Atlanta, GA <http://www.botlanta.org/Rally/>
- DARPA Grand Challenge conference Saturday, February 22, 2003, Los Angeles, CA, <http://www.darpa.mil/grandchallenge/conference.htm>
- International Robot Sumo Tournament by FujiSoft, <http://www.fsi.co.jp/sumo-e/index.html>, possible \$2000 cash prize, Tuesday, March 18, 2003 Seattle, WA, Thursday, March 20, 2003 San Francisco, CA, possibly coincides with the SFRSAs Spring Robot Games, old site <http://www.robots.org/events.htm>, new site under construction <http://www.robotics-society.org/>, Saturday, March 22, 2003 Los Angeles, CA
- Trinity College Fire Fighting Robot Contest- Sunday, Apr 13, 2003 - Hartford, CT, <http://www.trincoll.edu/events/robot/>
- Western Canadian Robot Games- Saturday May 10, 2003 - Calgary, Alberta, Canada, <http://www.robotgames.com/>
- SRS Robothon- Saturday and Sunday, October 25, 26 2003, <http://www.seattlerobotics.org/robothon/index.html>

Possible Events

- Acroname RoboExpo, <http://www.robo02.com/index.html>, unknown April possible 2003 (last - Fri, Sat, April 5,6, 2002) Boulder, CO
- PARTS PDXBOT, <http://www.portlandrobotics.org/PDXBOT/index.html>, unknown May possible (last - Sunday, May 19, 2002) Portland, OR
- TCRG Science Museum Challenge, <http://tcrobots.org/index.html>, St. Paul, MN

Vicki Taylor
Vice President