

# Minutes of the January 2015 DPRG meeting

The 10 January 2015 meeting of the Dallas Personal Robotics Group started at 12:15 PM.

The first business was to hold the elections for the new slate of officers. Since there was no one running in opposition the vote was for or against the following slate of candidates:

President	- Doug Paradis
Vice President	- Steve Edwards
Secretary	- Richard Neveau
Treasurer	- James LeRoy
Librarian	- John Kuhlenschmidt

At the time of the vote there were 45 DPRG members so 15 votes were needed to approve this slate.

Per the bylaws votes were collected via e-mail and by written request at the meeting. A total of 22 members voted FOR the new officers so all were elected.

After the voting was completed Doug Paradis talked about what he hoped to accomplish for 2015.

The first portion of the talk went over his goals for DPRG :

- Provide comradeship for the members
  - Help facilitate learning (for members and non-members)
  - Provide several competitions each year to help give each member
    - Incentive to play with and improve your robot(s)
    - Opportunity to try out new ideas
    - Learn new robotics skills
    - See how your robot building skills compare to others
    - Win prizes
- Contests should be a good way to help draw in new members
- Build and maintain a healthy club
    - Hold current members and add new members
    - Shore up finances by improving support from outside the membership
  - Return to the community thru
    - Demos at other events
    - Add outreach during RBNO to support some of the coaches working with local robot contests like VEX, FIRST and BEST (and others)
    - Figure out better ways to help students who for some reason can't find a spot to participate. Help the people on the waiting lists for the groups who compete in the contests mentioned above. The first step will be to expand promotion of our spring roborama (A) contests for new teams or individuals.
  - Try to better support the club sponsors

Always ask - Are we fulfilling the needs of the members?

Some other ideas floated during this part of the meeting.

We need to better advertise the various contests to get more participation from outside the club.

Ron Grant brought up outreach to some of the local universities and colleges. Many time they have a loosely organized group to promote robotics and maybe we can invite them to a specific RBNO to discuss cross support or make a visit to their meetings. There was general agreement this might be a good source of new members.

As part of improving member communications the board also wants to get the [www.dprg.org](http://www.dprg.org) web site ported to a platform that allows us to move the workload off of Steve Rainwater. Steve has provided the club with a lot of great support over the past *decades* but it is time to move to a new system with more hands able to help with site content. Vlad Gutnyk volunteered to help spearhead the porting effort.

Doug then talked about competitions (contests) for 2015.

Some ideas for the various contests were

Contests proposed for May / Spring

- Plastic Sumo – right now not a strong demand for mini (10cm) sumo. Club needs to see if we can promote this at local schools better and the judges need to improve making sure robots conform to the rules if we do get more contestants. In 2014a competition we had 19 robots entered – goal was to double this.
- Line following  
Hold Beginning and Advanced contest (not Junior & Senior!) for sure but only hold Challenge if a few people want to try it out. Promote Beginning as a second contest for the Sumo robots. Mention was made of a need for new tiles for line following as old tiles are wearing out
- Can Can Soccer  
Some ideas were to allow swam entries. Also to have a first “qualifying run with single robot before the head to head runs start. Limiting time to 5 minutes was proposed. Several people thought having a random Random Agent (e.g. NBot) that wandered around instead of a competitor that was also gathering cans would be a good idea – or maybe some radio controlled cans that move around. Several people proposed reducing the size/weight of the robots that can compete if we keep head to head can collection.
- Consensus seemed to be to keep the existing Table Top contest but maybe add more phases with some line following or maze solving. Maybe just hold beginning line following on a tabletop.

June 20

Doug is going to Sparkfun AVC – looking for others to participate.  
Looks like we might have a small convoy headed to Colorado.

Fall (Oct or Nov) - idea was to hold a separate indoor and outdoor contest again.

New indoor corner to corner (C2C) event proposed - based on ideas proposed on SRS mailing list but with our own rules. Idea is to navigate with obstacles in a normal environment + add special features like a maze or ?? Recharge power? Points for doing things while going from corner to corner.

Expand outdoor with more legs and maybe prizes for people that only compete in first leg. Keep first leg similar to 2014B Roborama but maybe shorter distance before a turn to the follow on legs.

Several people requested a need to have a session in one of the meetings soon after each competition with an after action report (especially from the winners) on what strategies worked and any other lessons learned.

James LeRoy was designated as the lead on coming up with the formal list of contests and will he will also be the coordinator for generating the official rules. General agreement that James is the Rules Czar and his word will be final on any contest rules in 2015 to simplify things.

A discussion was then held on ideas for community service. There was general agreement we should limit the number of events we participate in to help focus our efforts. Events we seemed to have agreement about attending were

Roborama in May will include more promotion than we normally do. Richard has already reached out to get a firm date at perot museum.

Tyler MakerFaire

Moon Day

We may participate in future Tanners outdoor events as just part of DMS instead of as DPRG

Other events will be evaluated as we get proposals from the event organizers.

For the events we do participate in we need to improve interactivity for visitors. Some suggestions were

- Painting robot arm - w/Intel Galileo
- Line doodler (on white board)
- Fix our metal robot arm – or get a better one that doesn't break so often
- Big Robby – add second shoulder
- Good IMU demo – in airplane / glider (Ron volunteered to lead this)
- Some sort of environment interaction maybe based on Microsoft Kinect
- More ideas needed.

For the learning goal some of the proposals for classes in 2015 were - in no particular order.....

- Balancing robot approaches from David Anderson
- Machining on lathe. learning other metalworking tools.
- Transitioning from Arduino to ARM (bare metal/RTOS and/or Linux)
- RTOS basics
- Open CV or Simple CV
- Slam basics
- ROS basics - in particular a 1000 ft overview of the framework and how things work together.
- Low level motor control. Picking an H Bridge or higher level motor controller. PID algorithm. Stepper motor control.
- Gyros and accelerometers
- Whats new in UBLOX - M8 GPS devices
- using Android phones for robotics
- Kinematics Path control for movement. Linear Algebra.
- Source Code control basics (maybe with git)

The formal annual general member meeting was closed at this point