 **Minutes of the 05/21/2013 IEEE Tampa Bay RAS Meeting**

 (Prepared by Sean Denny, Recording Secretary)

Location: MOSI at 4801 E Fowler Avenue, Tampa, FL, 33617

Room: Idea Zone Maker Space

Date: May 21, 2013

Time: 6:05pm to 8:35pm

The Tampa Bay Chapter of IEEE’s Robotics and Automation Society held the May meeting at the Idea Zone at The Museum of Science and Industry in Tampa. The IEEE RAS Chapter plans to execute on the Vision of the Chapter’s Founder, George Schott to “Learn, Do, Teach”.

There were a total of 6 people made of 4 IEEE members, 0 Students, and 2 guests present.

OFFICER ROLL CALL:

o Chairman – Ken Fiallos

o Vice-Chairman/Secretary – Sean Denny

o Treasurer – Tom Hayden

OLD BUSINESS:

The Motion to approve the April Minutes as published was made by Ken Fiallos; Seconded by Tom Hayden. There was no discussion and the motion passed unanimously.

Treasurer Tom Hayden reported $45.00 was collected at the meeting.

BEST CALENDAR 2013:

The Proposed BEST Schedule for the 2013 following dates:

1. 9/7/13🡪Kickoff Day Workshop (suggested venue MOSI)
2. Learn about this year’s game and theme.
3. Receive Materials (Permanent Kits and Consumable Kits)
4. Receive a CD with game related files
5. Driver tryouts (students get to manipulate a real arm)
6. Workshops for the Business plan presentation, business process, Trade Show Marketing, The Engineering Process, and Robotic Arm Hardware basics.

b. Workshop 9/14

c. Workshop 9/21

d. Workshop 9/28

e. Mall Day Workshop 10/5 (suggested venue MOSI)

 A chance to practice and check out the competition

f. Workshop 10/12

g. BEST Competition Day 1-10/18 (Friday Night)

 (Suggested venues Armwood or MOSI)

Consisting of Oral Presentations and tradeshow booths. Students need to turn in their Engineering Notebooks

h. BEST Competition Day 2-10/19 (Saturday Night)

Saturday Robot Competition, Awards

NEW BUSINESS:

 Ken Fiallos, Tom Hayden, and Sean Denny discussed the current Monthly milestones and action items for the BEST Competition.

1. Call Greg Young there will be 16 proposed teams to buy the components for the parts that make up the kits. Get donated parts inventoryed as soon as possible.
2. The purchase orders have been pledged by Larry Plank through Hillsborough County Schools by the first week of July. However, it is urgent we try to purchase the parts by the end of June.
3. Before the first workshop on 8/14 at HCC, Tom Hayden promised to build spreadsheets of the proposed parts to build the consumable and permanent kits.
4. Need ziplock bags and small boxes.
5. Bundle the PVC and plywood.
6. Regulate a line at the competition to get the bundled kits distributed.
7. Research on crimpers.
8. Tom Hayden suggested to consolidate the Purchase Orders and buy from recognized vendors like Home Depot, Grainger, Tower Hobbies, McMasters, Walmart, etc...
9. Bob Krouse is working on getting these vendors to give us the supplies.
10. Committee Assignments:
	1. Build the kits and get the purchase orders from Larry Plank. Get SKUs and manufacturer part numbers.
	2. Get 18 kits for 16 teams
	3. List of all the companies and what parts and need PO for each items.

NOTE: Micah Alo, Drew & Mary Davis arrived at this point.

Drew Davis is working on a project with the Pinellas Fire-Chief to generate Robot Parts via the MOSI laser cutter. Tom Hayden said the usage of the laser cutter is on hold at MOSI. We will be updated soon on any changes.

ELECTRATHON UPDATE:

1. Awards Banquet at YBor City’s Spaghetti Warehouse on May 29, 2013.
2. Instrumentation and Telemetry
3. Model a battery discharge through Post width Modulation with Arduinos and a 60 volt car.

USF-IEEE Students:

The IEEE FWCS RAS needs to reach out to the new USF Officers members for the 2013-2014 school year. They are developing a Mesh Data Network to be ready by February 2014.

HCC Robotics Camps on July 29-Advanced Robotics & Electronics Camp-FULL:

 The 40 XP Series 1 Radios have been purchased by FLATE to add wireless to the current ABC Presentation.

BEST Update:

 Thirty two schools have agreed to participate. The Business and robotics education to the masses and will foster teamwork. The Workshops will include: Engineering design, business plan, tradeshow, Robot Arm Hardware, Robot C and Easy C Videos, and SketchUp Pro 8.

Jim Anderson suggested to raise money through KickStart to match the funds. We discussed the pros and cons of this website. Drew Davis will research KickStart and plans to lead a short presentation on the September 7th (Workshop Kickoff) at MOSI. Mary Davis would be here for the 9/7 kickoff and help with the fundraising committee.

Tom Hayden noted our Tax Exempt Status is not complete. But we need to run through the foundation and must file before donations are given. Larry Plank said the money is not to be used for the food for the judges. We need to figure out where and what food to buy for the students and the judges.

Dr. Bhanja will write a grant for our second year.

Field Construction and make lists for consumable and returnable parts. We build one first set and Middleton Construction the other 3 sets.

There is a proposed Easy C Software presentation by Jim Kendall and Tom Wilson at HCC. Tom brought up there is a licensing issue which must be addressed to which computers are to be used.

Cameras will generate footage of the completion to the Parents in the bleachers. It was suggested to turn the WiFi off and use a Cat V Cable. Check ahead of time with MOSI.

SketchUp Pro 8: There is a Free XPS plugin for MOSI laser printer as a vector not raster file.

PRESENTATION:

 Micah Alo wants to hook up sensors for Fish Feeders and fabricate a robotic fish counter to count Red Drum Fish. A digital camera records the images but each fish counted via a constant size and regulated flow stream. The problem is the overlap. The video would be process the video image for certainty.

The group suggested using lasers and use an algorithm at a flow rate 2 gallons per minute to the size of the fish. The Percentage of time the beam is blocked would be a Derived heuristic.

Measure length of time for flow rate and size of fish per flow stream less than an inch of another. Separate by thickness and length. The grids allow a bunch of fish to swim through at the same time. Infrared beam goes through the plexiglass and water. Measure and calibrate the fish population versus the standard distribution.

Low powered laser is $6.00 100 milliwatt. Using the Arduino, It needs to display a number like “250 fish swam through”. Know how many fish you have. Number logs to a spreadsheet after they swim through. Beam is good for 1000ft. Refraction may occur if there are splashes.

Micah was asked to Build an apparatus and define time for 100 fish prototype. Fish feeder first, Compare WiFi and Ethernet Shield at the June Meeting.

Small fish would be a quarter of an inch. Tube would be clear. Ken will give photo transistors. Build the tank, channel, and receiver with plexiglass. Laser would pass through. Polycarbonate channel tube via Total Plastics Inc.

Adjourned at 8:35pm by Tom Hayden; Seconded by Drew Davis.

Respectfully submitted by

Sean Denny,

Tampa Bay IEEE RAS Chapter Secretary

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