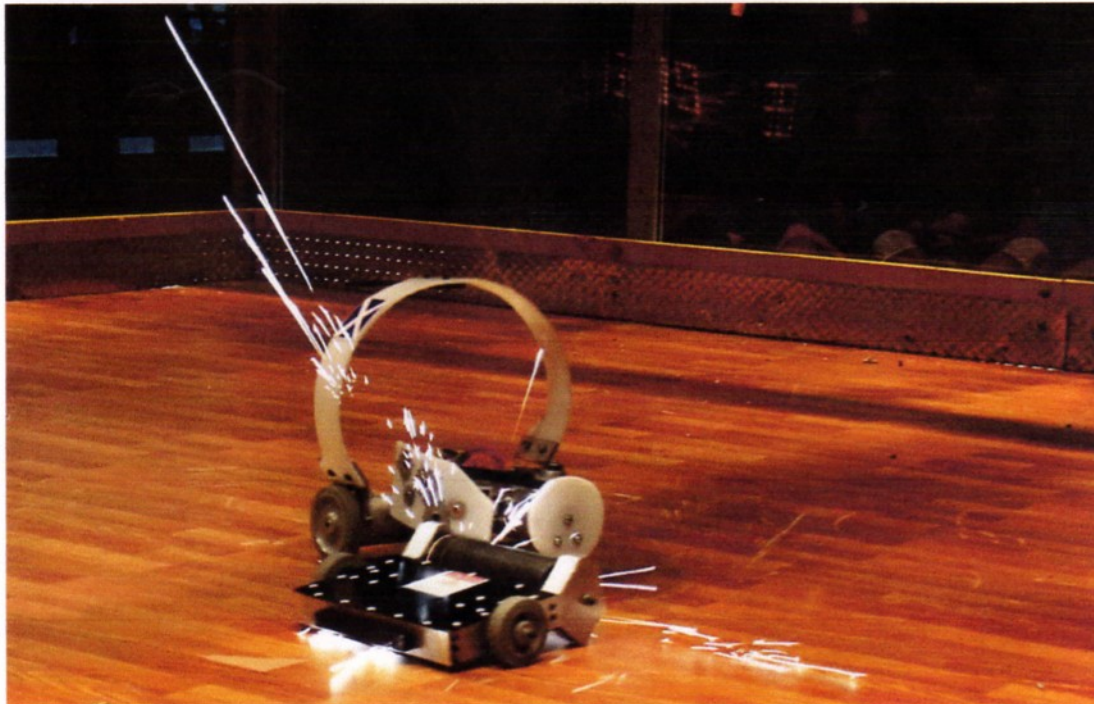


The Appliance of Science

by Peter Smith



The Northeast Robotics Club (www.nerc.us) has held a very successful event every February in Harrisburg, PA and this year, they partnered with the Franklin Institute Science Museum (www2.fi.edu) to add a second major event.

The First Annual Franklin Institute Event

The Institute is a modern, hands-on type of museum situated in the center of Philadelphia. It houses many large exhibits in a bright modern building which also includes an IMAX cinema. It is, in many ways, an ideal venue for a robotic combat event with a regular audience, excellent facilities with good food, easy parking, and best of all, its own, custom-built arena. It even has a high wire bicycle running up above and across the foyer (Figure 1)! The first event was

held on Saturday, October 20th.

Teams traveled from as far as Canada and Colorado, and those driving had a most unpleasant trip as the weather the day before was a constant rain covering much of the East Coast. Luckily, the rain had stopped by Saturday morning as it was necessary to get into the venue before the 7.00 AM deadline. The early start was required so that the event could be completed in one day. All teams made it in time and passed

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FIGURE 1. The arena can be seen in the background.

fairly smoothly through the registration and safety procedures. This is somewhat of a first for NERC events where it has almost become a tradition of folks building their bot on the morning of the event and not actually getting started with the fight's until after lunch.

The arena itself (see Figure 2) was a beauty to behold. It has a sturdy sectional aluminum frame, 1/2" thick polycarbonate, and a very smart looking wooden floor. This floor was laid using "Pergo" type laminated veneered panels. This resulted in a very smooth, seamless surface but one that was also very slippery which was to prove a slight problem for some of the bots. The one thing that really could have been an issue was the bumper rails which were of thin wood on inadequate mounting brackets. This might have been a problem if any of the big blade 30 lbers like Totally Offensive or Relic had been present, but it proved adequate with only the shell spinner Tripolar posing any real risk of breaking through it.

There was a brief opening ceremony by the director of the institute and then the competition got underway. There were only four beetleweights so that part of the competition was a round-robin where each robot had to fight each other and the one with the best record won. The blade spinner Pure Dead Brilliant was looking to be an easy winner after beating Messing with Sasquatch and Destructive Crab when an insufficiently tightened screw allowed its entire innards to be ejected after a particularly energetic hit by the last competitor in the class, Yeti. This gave the first place to Yeti, with the spinner having to settle



for second. There was a larger number of bots in the 12 lb hobbyweights class so it was run as the usual double elimination. Highlights were the Pyrrhic victory of L.T.F.D. over Gigarange; a very close battle between Ntertainment (Figure 3) and Surgical Strike with the former winning on a split decision, and a dramatic final between Ntertainment and the innovative invertible full body spinner Ingor (Figure 4). This final match was a classic and ended with a huge hit which shot pieces of Ingor in all directions. This match gave Ntertainment the overall win with Ingor taking second and Not a VD getting third.

If there was a prize for the most damaged bot, then L.T.F.D. would have been a serious contender (Figure 5). It had narrowly beaten Gigarange in its first fight, losing to Ingor, and had finally drawn Surgical Strike for its third fight! The builder, by this time, had decided it was time to build a new bot and asked for it to be destroyed past the point of



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FIGURE 7. The figure is GORT from the movie "The Day the Earth Stood Still."



FIGURE 8. Ntertainment throwing Mephit at Franklin.

rebuilding to give her a good excuse. Surgical Strike obliged, completing what the two others had so ably started. The 30 lb featherweights fought round-robin with both Tripolar and Billy Bob doing well. Billy Bob got first place after the fight with its closest rival. Billy Bob is on a bit of a run having won at Motorama 2007 and a second placing at RoboGames last June.

The new 30 lb sportsman class was well supported and as at Motorama, the flippers dominated. Mangi put in a good show with its axe but could not resist the CO₂ power of Bounty Hunter (Figure 6). The other flipper Upheaval lost to Bounty Hunter in the winner's bracket, then beat it in the first round of the final match. NERC operates the brackets using pure double elimination so they had to fight again as Bounty Hunter had only lost one match. In the second encounter, Bounty Hunter dominated to get a deserved first place. The competition wound up by late afternoon and the excellent trophies for 1st, 2nd, and 3rd places were awarded. A large extra trophy, the "Franklin Cup" (Figure 7), was awarded by the Institute for the most innovative bot and this went to Ntertainment.

Overall, it was a great event. The only negative was the constant, excessively loud music which I'm sure can be looked at for next time. Thanks to all the Franklin Institute's staff for their help and support and special thanks to Roger Brooks of the Institute for his enthusiastic commentary and NERC's Alan Young who was the prime mover in getting the event held at such a magnificent venue. It is hoped that next year we will be able to have a full two-day event in the fall to complement Motorama in the spring. **SV**

Photographs by Peter Smith and Brian Benson.

1st Annual Hitec Robotics Cup



Hitec Robotics invites all humanoid roboticists this April 25th-27th at EFX (the Electric Flight Expo) at the University of Phoenix Stadium in sunny Arizona. Humanoid robots of all types and brands (both homemade and kit-form) are welcome to compete in the first annual **Hitec Robotics Cup**.

The **Hitec Robotics Cup** is composed of three different events:

Robo Speed: Robot sprint of 3m

Robo Mission: An obstacle course with stairs, blocks, and turns

Robo Duel: One on one fighting match between 'bots

Winners in all three categories will receive cash prizes & trophies!

Full rules and registration details available at our website. If you have any questions about the event please email tonyo@hitecrd.com or go to <http://www.hitecrobotics.com>



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