



WEST CATHOLIC ENIGMA ROBOTICS



FIRST Robotics

Logomotion 2011

Design Week

January 2011 Issue 2

Team 2075

Enigma: (noun)
somebody or some-
thing that baffles
understanding and
cannot be explained

Team Shapes Out Robot Design

Please help
Support Enigma!

If you are interested in supporting Enigma, please make checks payable to WCHS—Enigma. If you are interested in volunteering or seeking sponsorship opportunities, please contact the team coach at:

khzak@comcast.net

Thank you for all of your support; Team Enigma wouldn't be where it is today without the generous gifts of time, money, tools and mentorship that we receive.

Come Join Us!
Enigma Meetings

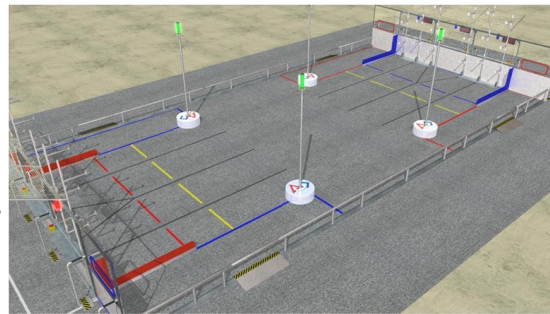
Please feel free to join us. We're happy to show you who we are and what we do!

With the beginning of the 2011 build season, we are currently meeting **Monday-Thursday nights from 6:00pm to 9:00pm and Saturdays from 10:00am to about 4:00pm.** These times are subject to change so please contact **Mary-Beth Zakfeld** by e-mail at khzak@comcast.net before attending. You can also request to be added to Enigma's mailing list to receive additional information.



From the moment the game is revealed, neurons begin to connect and gears begin to turn in the minds of FIRST Robotics team members. Whether their ideas support the programming unit (What drive can we program? What parts should we CAD?), the build unit (What device can pick up game pieces in the most efficient way? What materials can we use to prototype that? What the heck is a black widow?) or the marketing unit (How much money do we have? What fundraisers haven't we hit upon? How often should this newsletter go out?), all exemplify the makings of a true team. With that in mind, Team Enigma began the build season with many thoughts, much excitement and just a little caffeine craze. The first hours following the reveal of Logomotion, the 2011 FIRST Robotics challenge, were spent reviewing the rules of the game, the potential for penalties and the specifics of robot dimensions. This year, no height limit to which a

robot can be built exists. This fact can be construed in both positive and negative lights. In good news, the build team now has a bit more space with which to mold their crea-



The "black widow"

tivity. In bad news, with more height comes less stability. And in order to construct a stable, efficient robot, the team will indeed have to adhere to the laws of physics; not to mention the FIRST rules on width constraints. In view of this, the team set out next to determine which drive the robot should operate on. Both swerve drive and tank drive were debated. While swerve drive would allow the robot to turn at virtually any angle and have more control while doing so, it is extremely difficult to build and program. And

with the focus being more centered on the mechanics of minibots and game piece-collecting arms, less mentor consultation would be available to assist programmers.

For these final reasons, the more readily constructible, lighter tank drive was decided upon. Finally, the issue of pick-up devices was tackled. This is how the "black widow" came into being. So named for its black coloring

and many "legs," it is a prototype for a device which, operating with springs and an air-line, will pick up game pieces by sliding through the hole in the middle of the inflatable tubes. It will then expand to provide a more stable hold while the piece is transported. Once the tube is hooked and the points are on the grid, the spider-like legs will contract. As the second build week looms, members have set goals of continuing design and beginning construction on a frame.

WHAT F.I.R.S.T. ROBOTICS IS ALL ABOUT!

For Inspiration and Recognition of Science and Technology (FIRST) Robotics organization is a program that enables students to develop and hone skills that will help them throughout their lives as

well as in their prospective college plans and careers. Some requirements for commitment of this caliber include: determination, multi-tasking, logical thinking, perseverance, creativity,

resourcefulness and much patience. These skills help the students to achieve goals that are set by themselves and by their mentors at the beginning of each new season. And with this commitment also comes opportunity. Opportunity to train for the future; be pioneers of science; meet students and engineers from different schools, states and even different countries. But still more important, FIRST students learn gracious professionalism and the true meaning of teamwork.

Kickoff Events (continued)



Caption describing picture or graphic.

“To catch the reader's attention, place an interesting sentence or quote from the story here.”

Inside Story Headline

This story can fit 100-150 words.

The subject matter that appears in newsletters is virtually endless. You can include stories that focus on current technologies or innovations in your field.

You may also want to note business or economic trends, or make predictions for your customers or clients.

If the newsletter is distributed internally, you might

comment upon new procedures or improvements to the business. Sales figures or earnings will show how your business is growing.

Some newsletters include a column that is updated every issue, for instance, an advice column, a book review, a letter from the president, or an editorial. You can also profile new employees or top customers or vendors.

Inside Story Headline

This story can fit 75-125 words.

Selecting pictures or graphics is an important part of adding content to your newsletter.

Think about your article and ask yourself if the picture supports or enhances the message you're trying to convey. Avoid selecting images that appear to be out of context.

Microsoft Publisher includes thousands of clip art images from which you can choose and import into your newsletter. There are also several tools you can use to draw shapes and symbols.

Once you have chosen an image, place it close to the article. Be sure to place the caption of the image near the image.



Caption describing picture or graphic.

Inside Story Headline

This story can fit 150-200 words.

One benefit of using your newsletter as a promotional tool is that you can reuse content from other marketing materials, such as press releases, market studies, and reports.

While your main goal of distributing a newsletter might be to sell your product or service, the key to a successful newsletter is making it useful to your readers.

A great way to add useful content to your newsletter is to develop and write your

own articles, or include a calendar of upcoming events or a special offer that promotes a new product.

You can also research articles or find "filler" articles by accessing the World Wide Web. You can write about a variety of topics but try to keep your articles short.

Much of the content you put in your newsletter can also be used for your Web site. Microsoft Publisher offers a simple way to convert your newsletter to a Web publication. So, when you're finished writing your newsletter, convert it to a Web site and post

it.



Caption describing picture or graphic.

Inside Story Headline

This story can fit 100-150 words.

The subject matter that appears in newsletters is virtually endless. You can include stories that focus on current technologies or innovations in your field.

You may also want to note business or economic trends, or make predictions for your customers or clients.

If the newsletter is distributed internally, you might

comment upon new procedures or improvements to the business. Sales figures or earnings will show how your business is growing.

Some newsletters include a column that is updated every issue, for instance, an advice column, a book review, a letter from the president, or an editorial. You can also profile new employees or top customers or vendors.

"To catch the reader's attention, place an interesting sentence or quote from the story here."

Inside Story Headline

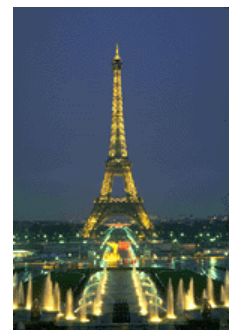
This story can fit 75-125 words.

Selecting pictures or graphics is an important part of adding content to your newsletter.

Think about your article and ask yourself if the picture supports or enhances the message you're trying to convey. Avoid selecting images that appear to be out of context.

Microsoft Publisher includes thousands of clip art images from which you can choose and import into your newsletter. There are also several tools you can use to draw shapes and symbols.

Once you have chosen an image, place it close to the article. Be sure to place the caption of the image near the image.



Caption describing picture or graphic.