



MEMO: January 8, 2006

SUBJECT: Project PhyXTGears 2006 Robot Design

GOAL: **March 16-18, 2006 -, Boilermaker Regional Competition**

To: TEAM PhyXTGears 2006

The last few months brought the great fortune of meeting each other and getting to know one another. Several of you have been honing your skills as programmer, graphic artists, designers, electricians, and builders. Your successful completion of the robot workstation demonstrates the design cycle and what you can do as a team. The upcoming challenge will bring several opportunities to work together, play together and most importantly, learn together while trying to reach a common objective:

Make a competitive showing at the Boilermaker Regional Competition.

PhyXTGears wants a well-designed, solidly constructed, highly engineered, completely function and very competitive robot. We want satisfaction. TO accomplish this, PhyXTGears must have a plan, and a plan of attack. In other words, strategy, design, cooperation and execution. PhyXTGears must be organized and work respectfully with each other.

Please see the following attachments. The first is the organizational structure of our team, PhyXTGears 2006. This chart demonstrates how several people will bring together their individual talents and personalities to work towards a complex goal, the robot. Your personal mission as part of this team is to have fun, learn, and make friends. FIRST was invented to create a competitive environment for thinkers that are future brains of this country. Be proud to be part of PhyXTGears and FIRST. That pride will make us successful as a team and as individual team members.

The second attachment outlines the process PhyXTGears will try to follow as we work to make the best possible robot we can. It includes critical milestones and deadlines we must hit. For example, the robot must ship February 21, 2006. You may recall the design process that was outlined in a workshop last fall. This is the same basic process, modified to fit the fast-paced schedule that must be met. It is an iterative process that will allow PhyXTGears to continually improve its design while moving towards the end product, a competitive robot.



The next two weeks are critical to our goal. The next few days will bring the most important decision we will face throughout the project. These early brainstorming sessions will set us down a path and that path will take several turns as we find our way. However, the straighter it is from the start, the sooner we get to the point where we are fine-tuning our robot, rather than re-engineering it. Study the Gantt Chart closely to make sure we are moving ahead as needed to design and build a great robot within the deadlines set forth.

To move forward, your level of cooperation must improve. You must be respectful of each other's ideas and allow them the same opportunity to share their thoughts, as you would expect from them. Sometimes knowing when to play and when to work, as well as when to listen and when to speak, is the challenge. Yesterday's open session at the Kick-off in Kokomo was productive, but very chaotic. This is an area we must improve to reach the level of cooperation needed to build the nest possible robot.

This is an intellectual competition. Learn everything you can about the game. Be creative and use the skills you develop in your areas of expertise. Get involved and don't be afraid to volunteer. Woody Flowers, from MIT, said the fame is about satisfaction, which he defined as being affective. Being affective as a team means working together to reach a common goal. PhyXTGears has a plan and is now prepared to deliver an awesome robot. So....

PhyXTGears!
AIM HIGH!
GO FOR GREEN!
GO TEAM!

Mark Lohmar

PhyXTGears
Project Manager