



## "Engineers On Track!"



Bedford Express Robotics Team 1023  
"Engineers On Track"  
Bedford High School  
8285 Jackman Road  
Temperance, MI 48182  
(734)-850-6273  
debbie.may@bedford.k12.mi.us



# We build robots but we need a little help!

Bedford Express, a FIRST robotics competition team out of Bedford High School in Temperance Michigan is in need of engineering mentors. Each year starting in January we join thousands of other teams in designing and building a robot to compete in the FIRST robotics competition. We build robots but our mission is to guide students to careers in engineering. This year we are in need of engineering mentors to help us complete our goals. We currently have ZERO engineering mentors able to help out with the 2012 season. This is a low number of engineers for an engineering program!

We know how to build robots! We just need a little help with the particulars...

We are looking for engineering mentors with experience or knowledge the following areas

- Autodesk/Solidworks CAD Software
- Machine Design
- Motor Curves
- Gear Ratios
- Engineering Concepts

This program can continue without engineers but it cannot be successful without engineers.

### F.A.Q.

#### **Q. When does it start? How often would I have to go?**

A. Our season begins on January 7<sup>th</sup> when the 2012 game is released. We then have 6 weeks to design, build and test our robot. You can come as often as you like. There is no minimum commitment. Bedford Express usually takes 2 weeks to design a machine in CAD, 2 weeks to build the machine and 2 weeks to test and improve the machine.

#### **Q. I don't know anything about handling high school kids or mentoring. Would I be in charge of high school kids?**

A. That's what parents and coaches are for! Bedford Express is a varsity activity run by three coaches and many parent volunteers. We'll take care of all that stuff. We'll help you with the mentoring. We need you to help us work through some engineering problems.





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### Q. What are these robots and what do they do?

A. Our robots are usually 120lb machines consisting of a manipulator sitting on some sort of chassis. Past game challenges have included controlling and kicking up a soccer ball, hanging inner tubes on hooks, picking up balls from the ground and delivering them into baskets. We'll take care of chassis and control systems. Designing and building manipulators to complete game challenges is what we need help with.

### Q. Robots? That sounds like electrical engineering. Doesn't Bedford Express really want Electrical Engineers?

A. We want all the engineers we can get but what we're hurting for right now is mechanical. The control system comes "canned". Our students are already trained in wiring and programming robots. Bedford Express wants electrical engineers too but the engineering problems we need help solving are mechanical.



**Bedford Express is looking for engineers! Engineers need not necessarily be experienced in working with kids or robots!**

**You may not be the engineer we're looking for but you might know the engineer we're looking for! Please pass this along!**

Please contact any of these coaches if you are even a little interested to learn more about the program.

Debbie May - 419.304.8342

Nick Poskarbiewicz - 419.250.4457

Hannah May - 419.351.1490

To learn more about the team, see past robots and videos of us in action check out the Bedford Express website [www.bedfordexpress.org](http://www.bedfordexpress.org).

