

## WELCOME TO BODY FORWARD!

### WEEK 2 - If your team is on track:

#### Robot Game:

1. You have brainstormed the basic requirements for your robot chassis. (What kind of robot base do you need? A strong robot? Fast robot? Tall? Narrow? Wide? What kind of drive train do you need? Treads? Large narrow tires? Small fat tires? Skids? Differential drive? Etc.)
2. Robot prototype construction has begun. *IF your team has access to more than one robot kit or more than one NXT controller, you might want to try two prototypes (or designs) and see which one works best! TIP: Many competitive teams purchase a new robot kit every year, to add to their ability to engineer multiple prototypes during the season. If your team can't afford an entire new kit every season, consider adding to your existing set – new NXT brick, new motors, additional touch or light sensors, additional rechargeable battery, etc.*
3. Brainstorm your first mission. What mission(s) do you think will be easiest to complete successfully? Can you combine more than one mission for your first excursion from base?
4. Brainstorm the types of attachments that you might want to use for that first outing. Will that one attachment concept work to gain points for any combined tasks on your first time out?
5. What programming skills does your team need to have to program for that first task? If your ideas go beyond your programming skills, where can you go to get help?
  1. *There are still some programming workshops available throughout the state. You can plan to attend one of those workshops. Find that information at: [http://edoutreach.wpafb.af.mil/Robotics/pages/resources\\_coac.html](http://edoutreach.wpafb.af.mil/Robotics/pages/resources_coac.html)*
  2. *You also might want to ask questions of other teams. Get started by accessing the FLL forum at: <http://www.firstlegoleague.org/what-is-fll/twocol.aspx?id=252>*

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### Project:

1. Research – your team should be dividing and conquering. Everyone could/should be involved in exploring a source or two in the field of biomedical engineering. *Hopefully, your team took advantage of kickoff event opportunities, many of which had experts in the biomedical engineering field who shared great ideas with the kids. You could send a request to your parents to see if any of them know of anyone who works in the biomedical engineering field who could come to a team meeting or who would allow the team to visit him/her.*
2. Discuss the results of your research. What did the team members discover? Is there anything that anyone found that is particularly interesting or relevant to team member issues? Perhaps someone on the team or a team family member is dealing with a life threatening or other quality of life health issue. Would this be an area where the team could find a solution to a problem for someone they know?
3. After Week 2 discussions, can your team decide on a topic? You might be ready to decide, or you might need the team to research some more and bring new ideas next week.

### Teamwork:

1. Your team should have a set of team rules that everyone has agreed to abide by. *A signed contract helps to get everyone on the same page and emphasize the importance of the rules.*
2. Your team should have rules surrounding programming and design modifications. In other words, everyone needs to follow a set of rules before any program is modified or before anything on the robot is changed. Documentation should go along with each change. A configuration control system is incredibly important if you want your team to move forward and utilize your time most effectively.
3. Your team members should now have defined roles. If you have team leaders, these should be defined by week 2.
4. Your team should have a process for settling disputes, because there WILL be times when people on your team will disagree.

**GOOD LUCK AS YOU MOVE FORWARD THROUGH WEEK 2...**