

ENGINEERING SYSTEMS
Individual Skill Competency List
Botball Robotics

NAME _____

Learning Requirements. By the end of the Botball project, you as an individual must demonstrate that you have mastered successfully the following skills:

The student will be able to:

1. Explain how a class team should be organized to ensure that the team members learn a significant subset of the project, a competitive robotic system is constructed, and all members stay busy during the class time allotted for the project.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

2. Describe the details of the game board, the point structure, and how the game is conducted from game start to game finish.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

3. Develop a game strategy for the team robot that will allow it to do a few things well and gain a competitive number of points.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

4. Identify a set of sensors (minimum of three) and the electronics needed to be included in a robot to carry out the game strategy, and explain how each sensor fits into the strategy.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

5. Select either the XBC or the HandyBoard that is used to power the robot, and be able to explain how it works.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

6. Prepare a list of the correct number of motors and servos that will be needed to make the robot and sensors you select work effectively, and be able to identify where each of the sensors, motors and servos are plugged into the XBC or HandyBoard.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

7. Write a program to operate one of the sensors selected for the robot, using the Botball reference materials.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

8. Describe how the tournament is carried out on tournament day.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____

9. Identify what information needs to be included in the team website's eleven sections.

Date Tested _____ Proficient Yes _____ No _____

Date Tested _____ Proficient Yes _____ No _____