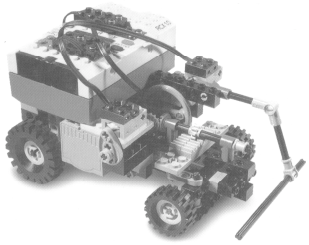
To: **Engr. 100 Students**

From: **Eleanor "Ellie" Christensen**

Date: **April 21, 2009**

Subject: Project #3: "Roverbot"



This memo describes the first of two projects using the Mindstorms Robotics Invention Set. Each team will need a disk to store their work.

Description:

Using the Robotics Invention Constructopedia in the Mindstorms Robotics Invention sets, build and program a "Roverbot". Program your robot to do the tasks listed below. Pay particular attention to the robot's durability and gearing while building. (10 points each)

1. Go forward for 2.5 seconds (set power at 7)
2. Go backwards for 3 seconds (set power at 1). Can your robot move?
3. Maneuver a 30˚ turn.
4. Follow a black line for 30 seconds
5. Move away from you (in a straight line), turn around and then come back to you.
6. Back up and turn when it runs into an obstacle and then continue.
7. Stop after receiving Message 1 and move forward after receiving Message 2 from another robot.

8 & 9 Design two unique tasks and demonstrate it to the class.

Team with most points will be the winner.

Comments:

1. Check boxes for missing parts.
2. All robots will be built during class time.
3. We have (hopefully) a laptop for each group. Be sure and check in the robotic sets at the end of the class period.
4. Please do <u>not</u> lose any parts, manuals or the racetrack. If you find that you are missing parts in your set, please note them on a 3"x 5" card and place it in your box. If you know of parts that could be an addition to the set, note them also. <u>Do not</u> borrow from other teams!! Be sure and check the floor before you leave.
5. In the construction of your team robot, remember that this is a team effort. Every member of the team is to help assemble and program the robot.

Date Due:

To be assigned

Group Responsibilities:

You will be assigned to a group consisting of three students.

Team leader—responsible for directing and focusing the team
Note taker—responsible for entering all pertinent data from group meetings (team journal)
Person responsible for participation sheet
Process observer---responsible for reporting the effectiveness of the team
Each team member -- responsible for reporting information/results in their journal

Comment;

There are textbooks available for reference. Please do not take them out of the room.

HAVE FUN