

91.450, Robotics I  
Fall 2001

### **Lab 1**

Out: Tuesday, 18 September 2001

Due: Thursday, 20 September 2001

In this lab, we will be learning about the Handy Board – its parts, where to plug in components, and how to program it. On Thursday, we will be using the Handy Board and the robot base that you will build for homework.

#### **Assignment for Thursday:**

On Thursday, we will be using the Handy Bug 9719 described in Section 2.2.2 of the Martin book (pages 50 – 71). Your assignment for Thursday is to find the parts listed on pages 54 – 56, with the following corrections:

- p. 54, halfway down: 4 2x4 bricks listed (correctly) with incorrect picture (1x2 Technic beam). You need the 4 2x4 bricks, not the 1x2 Technic beam.
- p. 56, last item: 2 black rubber bands are listed. These are too small. Use 2 yellow rubber bands instead.

You should have all of the parts in your kit, but you may find it takes time to find some of them. While looking for parts, I suggest that you organize your Lego parts in some manner that makes it easier for you to find parts in the future. If you dump everything into the bin, you'll find it very difficult to locate pieces when you want them. I have provided you with different sizes of Ziploc bags for this purpose. You can also use the trays that came with your robot kit, if you'd prefer.

Once you have found the parts, assemble the Handy Bug before Thursday's lab. In our lab on Thursday, we will be programming the robot, so it is important that your robot is ready to go. Your grade for this lab will be a binary grade, given on Thursday at the start of lab. If your robot is built, you will get 5/5 lab points. If your robot is not built, you will get 0/5 lab points. There is nothing to write up for this lab.