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2.007 Design and Manufacturing I
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Milestone #8 – Demonstrate Integrated Machine

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Deliverable: About 2 pages in your design notebook.

Due Date: April 6 through 10 at the normal times (T, R, or F at 4PM).

DESCRIPTION:

This milestone is a demonstration of your integrated machine. We're getting close the end of the scheduled design time. If you want to have an allowance for one cycle of design iteration, you'll aim for a substantially complete system demonstration the week of April 6. The demonstration might include, for example, both a system for collecting bales and also for setting them in place. If you find there is a significant problem, you may still have time for an alternative approach (e.g., to collect pre-crushed cans instead).

You'll see that this milestone is fairly light on required documentation. We asked for only a couple pages in your design notebook. Since it's getting late in the term and many of you have quite different plans than the others, this milestone is flexible. Here are some ideas about what to include in this week's documentation:

1. **A sketch of your modules within the constraints of the "home".** By now, you have a fairly clear idea of the space requirements of at least one module. You'll want to sure both can fit and also clear themselves from one another and successfully get out of the home.
2. **A demonstrated scheme for the first 10 seconds.** Not everyone will make good use of the first 10 seconds of the contest in which remote control is not allowed. You might find time this week to integrate a sensor onto a simple car and write a simple program. If you can at least drive out into a favorable position during the autonomous stage, you may have a large advantage.
3. **A final decision about batteries.** Many of you have performed your tests up to now with the 4.8V NiCad packs. If you are likely to transition to another battery configuration, you should try that around now. This will help the staff to forecast the demand for the various types of batteries and ensure we have an appropriate mix of packs and chargers.

OTHER ACTIVITY:

Don't forget that homework #3 is due on Tuesday April 7. If you have a chance to try all the problems over the weekend, you might be able to ask some questions during the lab on Monday.