

ETT 101 – Computer Applications for ET

Group Work 1

You and your team will have one week to construct a small car that is self propelled. The following specifications apply:

Lead time: 2 weeks (Demonstration will be on 04/24/2013 at the beginning of the lab)
Demonstration will include a short presentation on your design approach and what each team member did, along with running the car. All specifications will be tested, and will be the basis for part of the grade!

Assembly Materials: Your car can only be fabricated from the following materials:

- 3" X 5" notecards
- Rubber bands
- Glue (2 part epoxy, glue stick, or superglue)
- Rigid drinking straws (diameter not to exceed ½ inch.)

Tools: Any tools can be used to construct the car, but cannot be used during the demonstration

Specifications:

1. The car must weigh less than 150 grams
2. The car must fit within one cubic foot of space
3. The car must be self propelled (no external forces allowed)
4. The car must not come apart during motion
5. The car must move a minimum of 3 feet
6. The car must stay within a parallel path of +/- 1.0 feet

Goal: Move as straight as possible, and move the greatest distance

Your team must have a team leader who will be in charge of *scheduling / coordinating* activities:

- Design
- Procurement
- Fabrication
- Testing
- Demonstration

However, all team members must be responsible for participating in the five activities.

Keep track of all costs, and time required for each of the activities. Also, keep track of meetings / what was discussed / accomplished. You will be writing a report at the end of the project, so each member must help log the information!

ABSOLUTELY NO Web based research will be allowed! (However, you can use your statics or dynamics books.) You will also not be allowed to work with other groups – this is an individual group project!