**Chapter IV. Design Specifications**

## Chapter IV. Design Specifications

This chapter contains the basic user requirements - sometimes identified as 'Level 1 Specifications' . The engineering values that are derived from these basic user requirements are your design specifications. They include engineering targets which are usually hard numbers and not-to-exceed values. If your device works with another component or system (nearly all devices do!) then the interface specifications are identified in this segment. If necessary, a brief discussion of how you arrived at your specifications may be included. Itemized or bulleted specs are standard. Your specs should include as many numerical values as possible as long as they are accurate and traceable to some firm requirement. You should tie these in with the information in the preceding chapters.

Due to the fact that this project proposal is a type of competition and lacks both a sponsor and firm/OSHA/professional/industrial standards, many specs will be either required by the competition guidelines or the personal targets for the group.

Competition Standards (refer back to problem statement/level 1 requirements)

* Device (Not including peripheral equipment) must weigh less than 25 lb.
* Device must stow into am 18” cube.
* Device should cost less than $500 and include receipts.
* If a wedge or flipper is utilized (see Chapter V) the device must be able to lift/push a 25 lb object with ease. Shooting for >30lb.
* The power supply will idealy be able to run the bot for 10 minutes (or at least for 3 minutes and be accessible enough that it can be replaced in under 5 minutes.)

Interface Specs: