Appendix A: Environmental Impact Report

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1. **Materials Contained in Design**

ALUMINUM EXTRUSIONS

The aluminum extrusion used for a majority of the robot hull is composed of extruded 6105-T5 aluminum. There are numerous recycling plants in Milwaukee which all buy scrap aluminum extrusions. Throughout the robot’s construction and after the robot’s life has ended all aluminum hull components will be salvaged.

TRACE METALS/ELEMENTS

Components used in the electrical design contain copper, silver, tungsten and silica. Electrical components should be recycled for reuse. These contained elements are not harmful to the environment.

LEAD

This element poses an environmental impact to water supplies and ecosystems. Organisms can be killed due to improper disposal of lead. Two different components of the system contain lead. The first component is lead acid batteries used to power the robot. These lead acid batteries must be recycled properly to reclaim the dangerous lead. See Appendix B for the Material Safety Datasheet. The second component with lead is the solder used in the electrical connections. Components are connected together by a lead based solder. See Appendix C for the Material Safety Datasheet.

1. **Materials Contained in Prototype**

The materials contained in the prototype are identical to the materials in the design. The prototype and the final design are the same robot. See section A for the full list of materials.

1. **Special Handling Instructions**
2. **Special Storage Instructions**
3. **Disposal Instructions**

All metal components should be recycled for reuse. All electrical components should be recycled as well. However, particular care of the lead acid batteries should be taken. Lead acid batteries must be recycled to reclaim the lead contained within.