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**To:** Dr. Matt Bohm

**From:** Team PAS

**Project:** Plasma Arc Speaker

**Subject:** Planning Memo

**Date:** February 16, 2011

The plasma arc speaker requires a focus on safety, 360 degree sound distribution, and a mechanical device to spark the arc.  Establishing the fundamental standards to adhere to in developing the project is the first step which includes addressing the need for an insulated housing for holding the electrodes to prevent shock and overheating.  The removal of excess heat may also be an objective to tackle, as well as adding a Faraday cage to limit AM wave emissions. Other initial objectives to address will be producing a standalone housing which allows for 360 degree sound distribution, and the mechanical device used to lower and retract one electrode for starting and optimizing the arc sound.  The prototype development phase, following the planning phase noted in Team PAS’s Gantt Chart, addresses the fundamental standards, alternatives to ideas, and a detailed housing design and development.  
  
The Alpha Prototype submission handles issues and concerns for the initial design, showing any need for changes or additions.  Changes and additions are planned to allow for a safer, higher quality sounding housing following the Alpha Prototype assessment.    
  
An initial, final housing design is scheduled to be assessed during the Beta Prototype submission. Concerns will be addressed and fixed, along with producing a final design report and presentation for submission on the final two days of classes.