Hardware Team

Task Definition, Aims and Plans

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Task Definition

Provide a constructive review of Daedalus hardware design

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Aims - 1

For the CMU APEX team:

- **Review and improve the current hardware design**
- **Make suggestions about components / sub-systems**
- **Make suggestions for future versions of APEX robots**

The end results of this work will be:

- **A written report to**
  - **Provide an evaluation of the current system design**
  - **Provide constructive improvement proposals**
  - **Detail ideas that have been implemented**
- **Presentation to Red on 11 August 1993**

To be considered successful:

- **Report considered to be useful by CMU APEX team**
- **Red is satisfied with final report / presentation**

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Aims-2

For the CMU APEX and the CBI events & resources teams:

- **Determine components that require testing**
- **Determine sub-systems that require testing**
- **Suggest the types and durations of the testing**
- **Create a list of possible hardware failures**

The end result of this work will be:

- **Timely delivery of information to the other groups**

To be considered successful:

- **All requests responded to in the agreed upon time**

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Aims-3

For the CBI APEX hardware team:

- **Train and improve teamworking skills**
- **Gain technical knowledge useful for our jobs**

The end result of this work will be:

- **A list of products/suppliers used on the robot**
- **A collection of all minutes of the hardware team**

To be considered successful:

- **All team members have had fun**
- **All team members enjoyed working together**
- **Team will keep in touch after MEDD ends**
- **Team members gained knowledge of FRC technologies**

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Information

Mechanical / electrical hardware documentation

Sensor documentation

History (i.e. experience with earlier projects)

Tools, computer and other

Skills

Software (control strategies)

University library

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What Has To Be Done

Get information about available skills

Check specifications vs. current design

Gather information about components

Perform detailed analysis of mechanical HW

Perform detailed analysis of electric HW

Make suggestions to improve design

Define test procedures

Provide failure analysis data

Write report and prepare presentation

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Plan (Version 0.9)