Purdue Solar Racing Apollo Electrical Subsystems

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# Battery Protection Controller

## Overview

Protects the batteries from overcharging and discharging. Also Keeps track of the battery capacity and charge level.

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |
|  | Thermistors |
|  | Battery Voltage |

## Schematic

# Driver Display Controller

## Overview

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |

## Schematic

# Front/Rear Light Controller

## Overview

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |

## Schematic

# Junction (Safety) Controller

## Overview

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |

## Schematic

# Motor Controller

## Overview

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |

## Schematic

# Solar Array Controller

## Overview

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |

## Schematic

# Vehicle Controller

## Overview

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |

## Schematic

# Wheel Controller

## Overview

## Board I/O

|  |  |
| --- | --- |
| **Inputs** | **Outputs** |
| **CAN Network** | |
|  |  |
| **Hardware** | |
|  |  |

## Processor Ports

|  |  |
| --- | --- |
| **Port Number** | **Details** |
|  | Power/GND |
|  | CAN I/O |

## Schematic