

Robot Project  
Mervin Lynch

Mission, Systems,  
and Test  
Frank Briggs

System Design

System Block Diagram  
Interface Definition  
Resource Reports  
L2 System Requirements

Software

Arduino Program / C++  
Android Application  
Arxterra Command / Telemetry  
Control Panel Customization

System Test

Verification Test Plan  
Verification Tests  
Verification Report

Electronics and  
Control  
Roger Cappallo

Electronic Design

Define L2 Subsystem  
Requirements  
Component Specification

Experiments

Trade-off Studies  
Rapid Prototyping  
Models  
Simulation

Microcontroller

Fritzing Diagram  
Breadboard(s)  
Schematic Capture  
Purchase Electronic Part

Control

PID Control

Power

Battery

Communications

Bluetooth

Manufacturing  
Division  
Miguel Morales

Mechanical Design

3D Robot Model  
Mechanical Interface Definition  
L2 Subsystem Requirements

3D Modeling

PCB

Board Layout  
Purchase PCB  
SMT Stencil  
Reflow Board  
Electrical Test

Component  
Manufacturing

3D Printing  
CNC  
Mold  
Purchase Parts/Materials

Wiring Harness  
*The Cable Tree*

3D Model  
Purchase Parts/Materials  
Fabrication

Robot Buildout