

Automated Chemical Wiping System

Team All Suds No Duds
Sponsored by Masimo



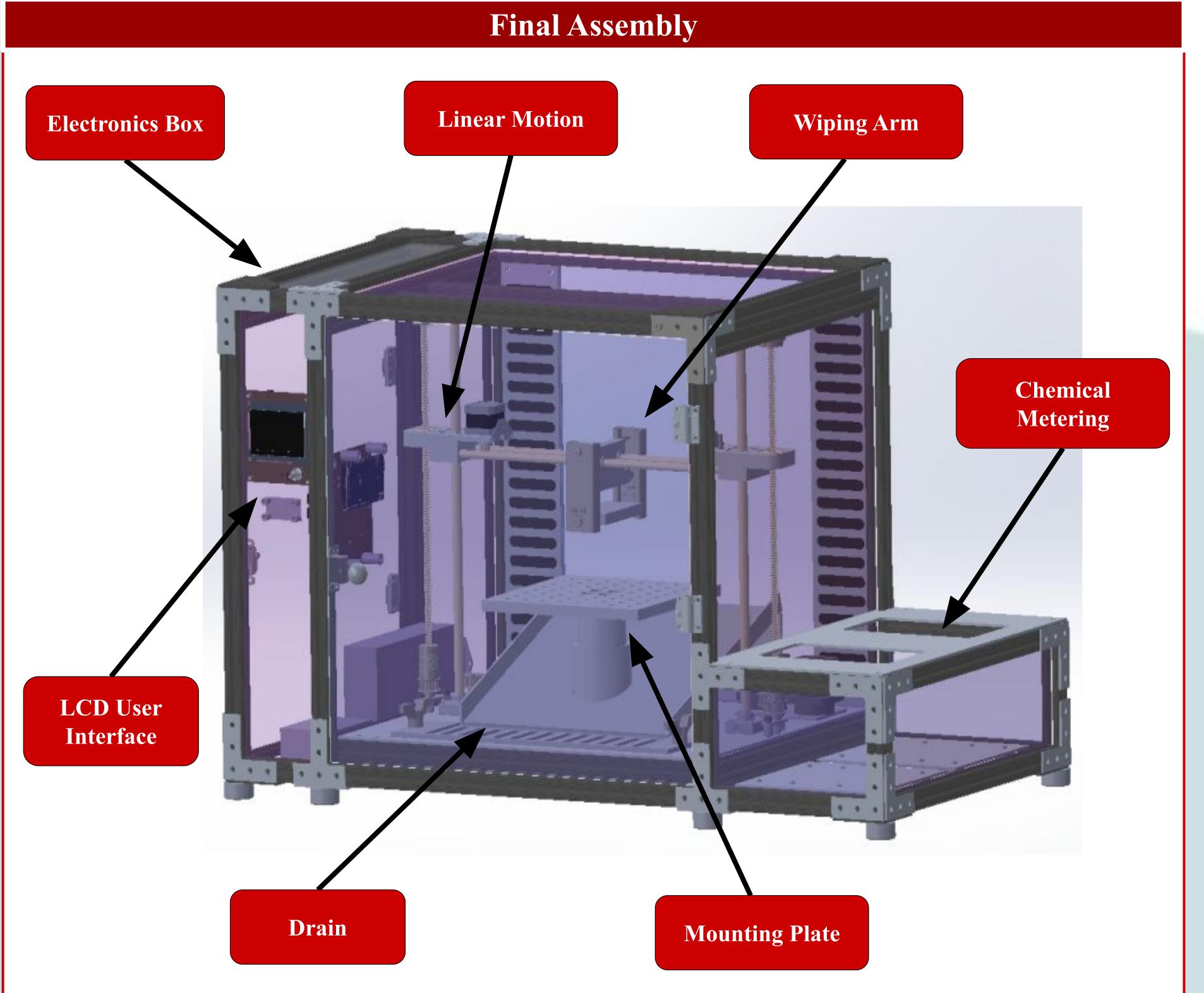


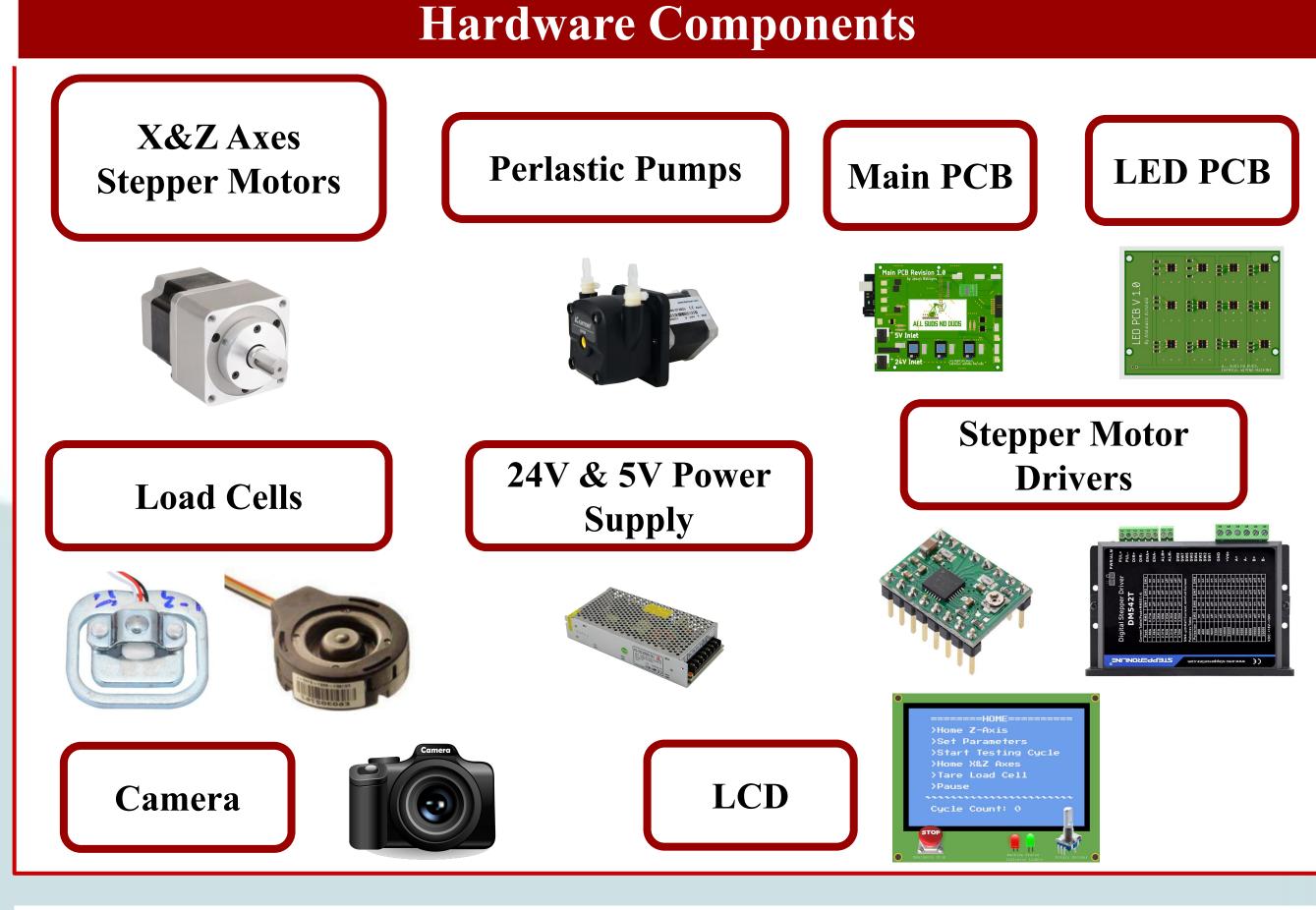
Objective

Project Overview

Devices used in a medical setting must have proper labeling on the exterior casing to maintain FDA certification.

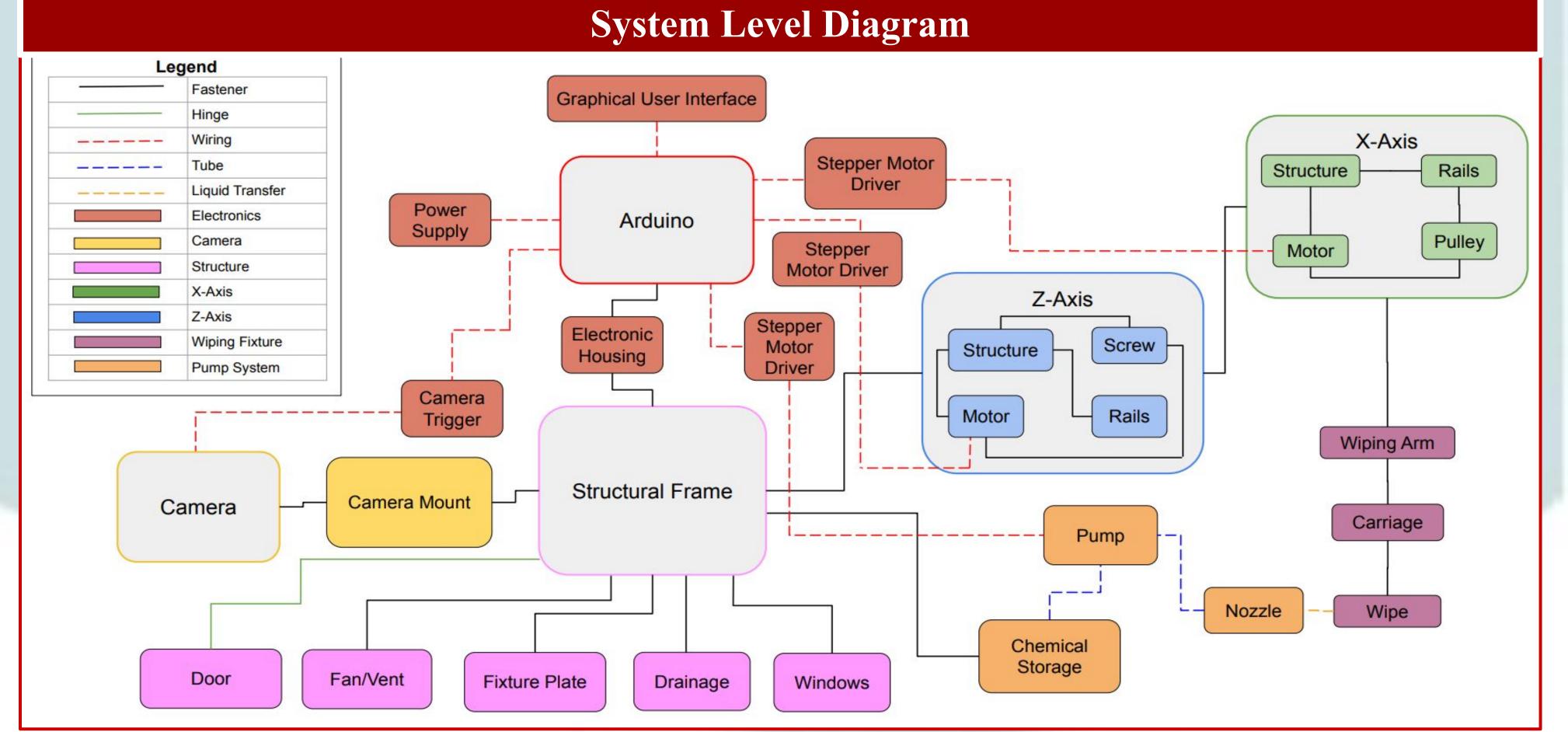
Team All Suds No Duds worked with sponsor Masimo to create a test device that is capable of completing up to 100,000 cycles autonomously to test material degradation of devices. This device consists of multiple subsystems for linear motion, drainage, wiping, camera, chemical application, and electrical components.





Load Cell	Provide accurate force readings when the object is wiped
Pump	Pumping speed and controlled amount of chemical fluid applied
Linear Motion	Verify movement in the x-axis and z-axis
Wiping Arm	Ability to apply force onto object and gather force feedback for analysis





Test