EE / CprE / SE 492 – sdmay32
Smart Saw
Week 11 Report
Client: Pachyderm Industries
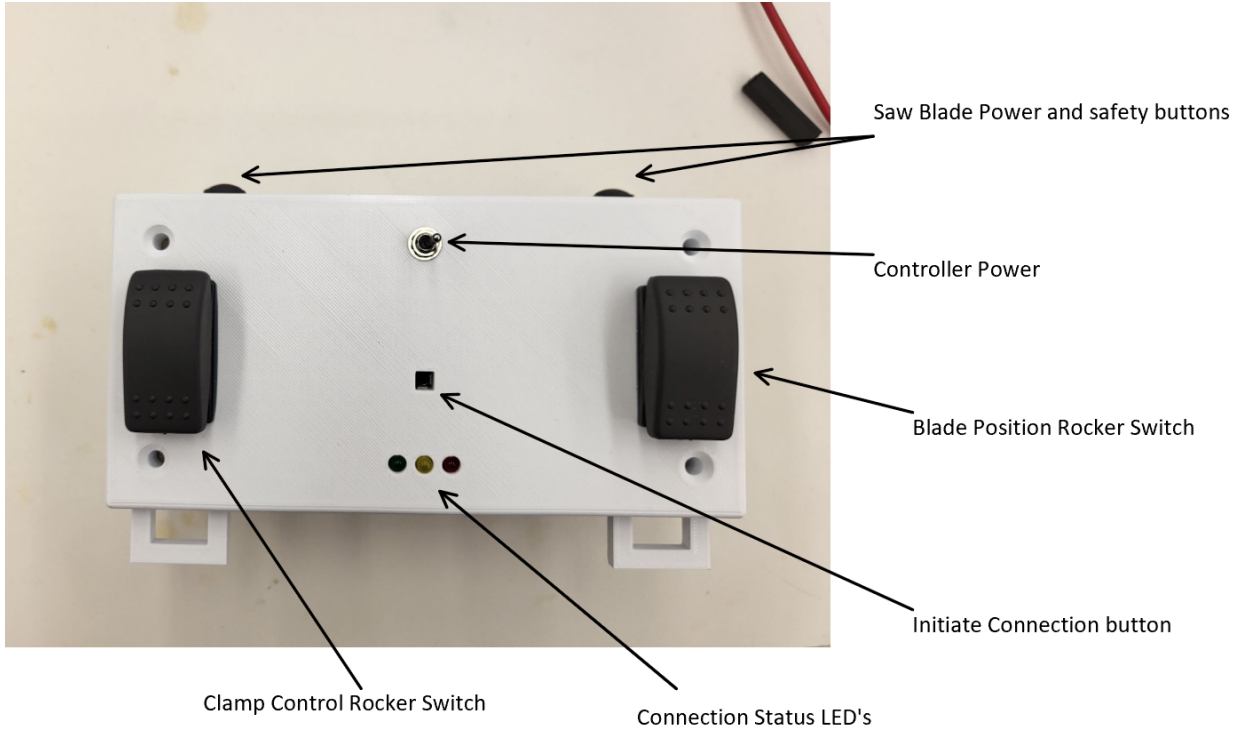Faculty Advisor: Long Que

Team Members: Jace Fedler, David Kruse, Ethan Bauman, Austin Mackedanz, Mitchell Kistner, Patrick Pham, Lance Longhorn

Past Week Accomplishments

- Controller is complete operational
  - Buttons and switches wired and assembled in controller housing
  - Communication between arduinos can be initiated using the controller
    - 2 bytes can be sent and received by the arduino in the controller and on the saw.
    - Buttons and switches are in place to control the motors of the Smart Saw, power switch, connection button, and LED's to indicate connection status.

Saw Blade Power and safety buttons

Controller Power

Blade Position Rocker Switch

Initiate Connection button

Clamp Control Rocker Switch

Connection Status LED's

○ Designed mount for arduino on the saw

- ○ Logged voltages and currents of the saw in its current state
  - ■ Main power
  - ■ Motor power

Pending Issues

- ● Main chainsaw motor is not functional currently, reasons unknown as of now
- ● Need to add a button cover to the connection button in order to make it more accessible. It is currently too embedded in the controller to be pressed easily.
- ● Need to finish assembly on the arduino chainsaw mount

Individual Contributions

Jace Fedler	Created and updated biweekly reports/ Updated different subgroups of each other's progress.
David Kruse	Finished assembly and functionality of the controller
Ethan Bauman	Finished assembly and functionality of the controller

Austin Mackedanz	Finished assembly and functionality of the controller and logged voltages and currents of the chainsaw's main power and motors.
Mitchell Kistner	Logged voltages and currents of the chainsaw's main power and motors.
Patrick Pham	Created and updated biweekly reports
Lance Longhorn	Designed and printed main arduino chainsaw mount and begun assembly

Plans for Coming Week

- Print the lid to the arduino chainsaw mount
- Connect chainsaw motors to arduino I/O
- Diagnose the problem that has caused the chainsaw motor to stop functioning
- Once the arduino chainsaw mount is finished, start control of chainsaw motors with controller