## Staff Meeting - 8/27/21

- Team needs to determine a budget (\$1600 suggested)
- Choose an existing vehicle to design to or join other team
- Hardware Review soon
  - Can we have a completed working prototype?
- Meet perry at machine shop Tuesday 5:00pm
- Next staff meeting on Wednesday in class

## Staff Meeting - 9/1/21

#### Agenda

- 1. Timecard Questions
- 2. Self-Learning
- 3. Purchasing
- 4. Hardware Review
- Suggested vehicle to use Incomplete Bamboo HPV
  - See Perry Wood in the machine shop for questions
- Self Learning
  - We need to choose bearings!!!
  - Yen Hall Effect Sensor
  - o Daniel Clutch Materials
  - Connor Clutch engagement mechanism
  - o Yujie FEA
- Hardware Review
  - o Make a mockup of the system on our chosen vehicle
  - o Electrical Systems design
  - o Current CAD
  - Working Prototype if possible

#### Team Meeting - 9/6/21

- Choose Vehicle
- Take measurements
- Discussed placement of system
- Hardware review tasks
  - Yujie/Abdulh CAD
  - o Connor/Daniel Clutch and flywheel sizes, placement, actuation
  - Yen Cardboard mock up

## Team Meeting - 9/14/21

#### <u>Agenda</u>

CAD

- 1. Mockup
- 2. Purchase Order
- CAD we need the frame and clutch/flywheel
  - Yujie Frame
  - Abdulh clutch/flywheel
- Mockup
  - Connor/Daniel/Yen Machine shop at 12:30 tomorrow
- Purchase Order
  - o Pit Bike Clutch
  - Stock Steel
  - Electrical Equipment

# Staff Meeting - 9/22/21

- Discussed revamping Engineering requirements
- Connor & Daniel to take apart the pit bike clutch and figure out how to use its parts for the design

# Team Meeting - 9/27/21

- Finalize Clutch Design
  - Friction plate
    - Pit bike clutch parts
  - Spring
  - Actuator
    - Jaw clutch?
- Finalize Flywheel Design
  - o Energy Equation Balance
- Design Shafts, bearings, chains, sprockets
  - o Shafts x2
    - Flywheel/clutch shaft
    - Transfer sprocket shaft
  - Sprocket x4 (find new rear wheel)
    - Rear axle sprocket
    - Transfer sprockets x2
    - Clutch sprocket
  - Chain x2 (maybe 3)
    - Transfer chain x2
    - New drive train?

- Bearings
  - Needle bearing x1 clutch actuator
  - Tapered bearing x1 flywheel
  - roller/journal bearing x1 clutch
- Design mount for Electrical stuff
  - Mount for magnet on wheel
  - Mount for sensor near wheel
  - Mount for display
- Fix Steering

#### Order of Importance

- 1. Flywheel design (energy, torque)
- 2. Shafts, Bearings
- 3. Clutch, sprockets, chains
- 4. Electrical mounts
- 5. Steering

# Staff Meeting 9/29/21

### Agenda

- Website Check Due 10/1/21
- Implementation Memo Due 10/8/21
- Midpoint Presentation Due 10/15/21

### Website Check

- Page for each person (portfolios)
  - o Jobs
  - o Internships
  - Projects
  - o Resumes?

# Implementation Memo

• Build something and make something work

### Midpoint Presentation

Testing designs for each ER

2 gear ratios for the clutch w/ derailleur?