

## Meeting Notes 4/12/24

### To do (everyone):

- Brainstorm group name ideas
- Settle on color scheme

### Software

- Need domain name, looking for new group name (yearly charge for domain), research cheapest
- Meeting summary, progress reports, research, roles tabs, about us
- Want something with design (not simplified like guhas) collab with cosmetics team for layouts and UI

### Structures

- Talked about brushless DC motors
- Planning to read up on motorcycle dynamics and discuss chassis fabrication ideas further to do in the next week or next 2 weeks
- Madi is going to research frame designs, Elijah will research motors w/ Keith, Trace will research ways to obtain metal
- Family trip to the junkyard!!
- Who knows CAD? -> help out with other teams -> CAD a basic skeleton so we can estimate size of motor and other parts based on that
- Metal battery housing for battery cells

### Electrical

- Researching electrical motor battery and controller
- Group members assigned various topics (might change)
- Jay DC Motors: DC motors are preferred since AC motors more complex
- Jeremy Jiang: battery and BMS; need speed range and acceleration before battery pack, battery management system (battery connects to) makes sure it doesn't blow up, researched different battery types and looked at specs
- Lithium iron battery (safer but heavier)
- Julie: controller converts DC voltage into AC for motor; low amp vs high amp (need specs) high amp on smaller motor risks overheating and damaging. Probably best to go with low amp.
- Battery specs will help with finding other parts
- Add ons(not yet researched): throttle, sensors, ebrake hall sensors
- Cost report to financial, parts list, design collab with mech and safety teams
- Summary: DC motor; lithium ion battery; controller size depends on motor size, leaning towards bigger amp;

### Cosmetics

- Julie's idea to go with Naked Bike design
- Ucf themed with stars black and blue
- Need color->type->cost



inspo for color scheme



### Mechanisms

- Motor design discussed
- Everyone is collaborating on the motor together
- Continue research of motor specs source batteries and copper winding