Meeting with Dr. Kaipa

Time: 2:00-2:30

Location: Dr. Kaipa’s laboratory

* Next meeting:
  + Set up a meeting place in a conference room for next Thursday from 2:00 – 3:00.
  + Study all the components of the vehicle
* Front view drawing of existing vehicle

Diagram, schematic

Description automatically generated

* + 4 thrusters for pitch and yaw motion
  + Brushless DC motors
    - Motors purchased from Blue Robotics in Canada
  + Vehicle was designed from scratch.
  + 3D printed in 4 parts
  + Main issues:
    - Waterproofing: 1 or 2 spoonfuls of water penetrated the inside of the vehicle after being under water for 45 minutes
    - Imperfect control system: 4 different potentiometers were used to control each thruster simultaneously
* Our goal: improve on existing vehicle
  + Improve waterproofing:
    - run tests to determine where water is permeating
      * Determine if water penetrates at specific places – consider partially submerging vehicle to test specific places
      * Determine if water penetrates only when vehicle collides with something
    - then implement seals
  + Improve control system: make a joystick based control
  + Minimize interior wiring
* Project scope: what can be done one year from now?
* Budget: Dr. Kaipa said we will determine that later as we determine what we need to purchase