## **User Manual**



Figure 1: Initial setup

## Assembly:

- 1. The UAV will come in 6 separate parts
  - a. Fuselage bottom half
    - i. Battery
    - ii. ESC
    - iii. Receiver
    - iv. Wires
    - v. Payload
    - vi. Motor
      - 1. With propeller
  - b. 2 Wings (Including screws)
    - i. 1 servo motor each with respective rods
    - ii. Ailerons
  - c. Controller
  - d. Fuselage top half
  - e. Tail (including pins)
    - i. 1 servo motor with elevator attached
- 2. The parts will have their respective components already placed within them.

- 3. Fit the wing spars of the wings into the two holes on the wing box on the side of the fuselage, make sure that the wires are in between the spars and can come out above the wings to connect into the fuselage.
- 4. Attach the 2 wires to relative slots on the receiver (Channel 4 and Channel 5, switch if ailerons turn in wrong directions) and fit in the screws into relative locations into the wing box securing the spars.
- 5. Attach the tail booms into the slots of the 3-D printed sections, push in properly until sudden stop.
- 6. Place the pins in the respective locations and secure the pins.
- 7. Attach the tail Servo motor wire into the relative section on the receiver (Channel 2)
- 8. The Battery should be connected to the ESC and the ESC should be connected to the motor and the receiver. The ESC slot is channel 3. Only connect the battery when you are ready to fly.
- 9. Turn on the controller to check to see if the motor, ailerons, and elevator are working.
- 10. Placing the Gatorade bottle is optional, however be mindful of the change in center of gravity. If you are putting the Gatorade bottle in, make sure it is secured with zip ties (not included) and is not leaking.
- 11. Then place the top half of the fuselage, secure it with tape sealing the gaps (not included).
- 12. When throwing the plane make sure to hold the plane in the right location, a certain distance from the propeller to avoid injury. **Beware of the propeller.**



Figure 2: Where to hold the UAV when throwing.