

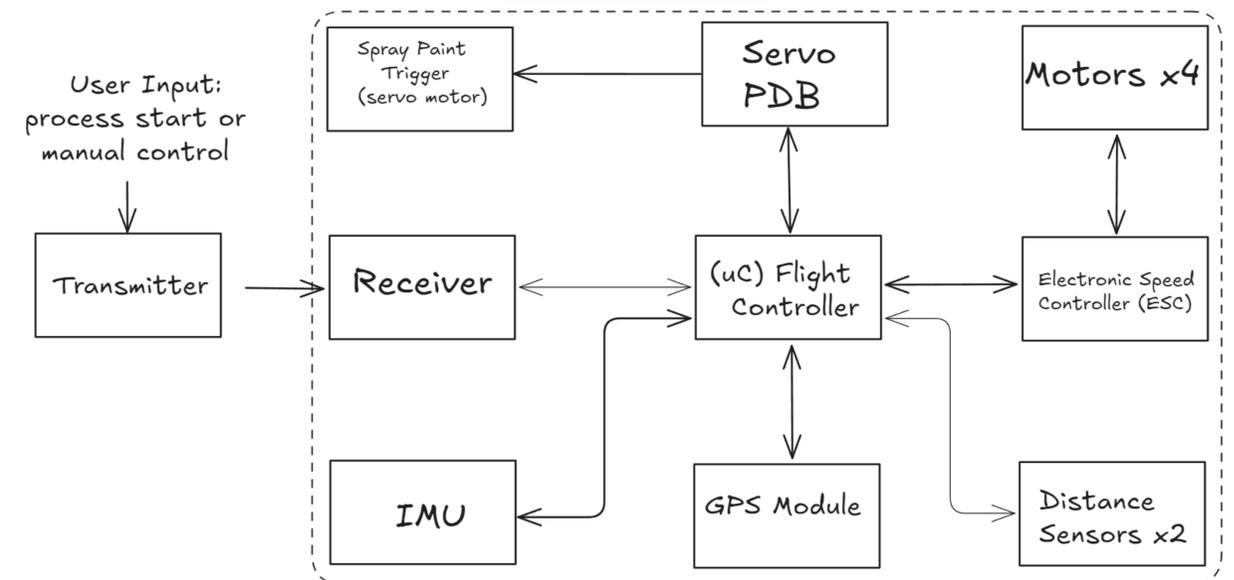
# FieldMarker

## Project

- Autonomous drone capable of marking locations for cones on an outdoor sports field.
- Decrease work-load of coaches and event staff for sporting events
- GPS guided; proximity sensor monitored
- Attached spray paint and trigger mechanism.



## System



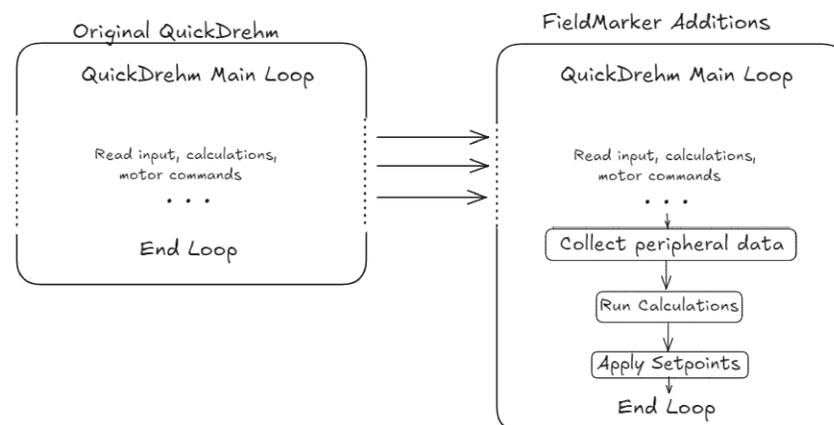
## Methods

Built on dRhemFlight/QuickDrehm VTOL Teensy Flight Controller Project

- Allowed for drone flight and servo control
- PID Control
- Dynamic Notch Filter

Add Ons:

- GPS for pathing
- Proximity sensors for altitude correction and object avoidance
- Spray paint mechanism for marker placement



## Conclusion

- Autonomous control of a mechanical system requires many sensors and real-time calculations
- Successfully collecting sensor data demonstrates project feasibility.
- Further insight into the GPS and compass module communication would bring the project to completion.
- I hope to continue the project and use the system myself