

Project Summary

This custom project that our team presented to our instructor originally included having a custom flight controller. With the timeline challenges and lack of available parts that came with this design we switched to creating a custom controller to control a drone built using a commercially available flight controller. Our team approached this by looking at all the parts that came with a fully functional drone and deciding what we were all able to create within a reasonable amount of time.

Timeline		2022										
Deliverables	Role	MARCH	APRIL			MAY				JUNE		
		W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21
B=Benny , M =Megan, J=Jeremiah												
Planning phase												
study and Research	B,M,J											
choosing parts	B,M,J											
ordering parts	B,M,J											
Team phase												
designing and planning pcb	B,M,J											
verifying pcb design	B,M,J											
ordering pcb	B,M,J											
Prototype phase												
verifying parts	B,M,J											
testing parts	B,M,J											
dry assembly of parts	B,M,J											
verifying circiut	B,M,J											
start soldering	B,M,J											
Implementation phase												
assembly of pcb	B,M											
test pcb	B,M,J											
make enclosure for pcb	B,M,J											
final test	B,M,J											
verification of success	B,M,J											
permanantly assemble parts	B,M,J											
Closure phase												
make presentation board	B,M,J											
practice presentation	B,M,J											
present at kelly	B,M,J											

Our team learned about every aspect of RC drones. We learned how to take various user inputs such as switches, buttons and joysticks, and turn them into signals that are capable of being transmitted over radio frequencies. We then learned how to take those signals and convert them into a form that a transceiver can give to an RC vehicle, such as a drone. We also learned about the protocols that a drone uses to communicate between its many parts. Ultimately we learned about clear communication and how to troubleshoot our various problems.