

Week 1 Homework

1. According to 14 CFR part 107, the responsibility to inspect the small UAS to ensure it is in a safe operating condition rests with who?
2. According to 14 CFR part 48, when must a person register a small UA with the FAA?
3. What is the difference between AC and DC?
4. What is back EMF?
5. How many RPM does a 2300kv motor produce if connected to a 11.1V battery source?
6. What is the continuity equation? Please explain in detail.
7. Why do two motors spin clockwise and the other two motors spin counter-clockwise?
8. What is the maximum charge of a 2S 3000mAh battery?
9. What happens if we charge a 2S battery and use a 3S charge setting?
10. What are the risks of flying with damaged lithium batteries?
11. What is the output of the PID control circuit equation?