

Hi Walter,

Our ideas are as follows:

1. Capacity: we should keep it as close as possible to the batteries available on the market (eg 3S 5050mAh), to keep everything balanced. You will always have the ones with 5500 or grade A batteries that will have an edge, but this will be solved by making the limiter mandatory at a later stage.
2. Ramp down is ok as you said, just need to avoid anything less than 3-4 seconds, so it cannot be confused with a throttle down in a curve.
3. Calibration: we can design a simple stand that will simulate consumption on 30 sec or one minute. This could be ok if the limiters will display actual values (preferably current and voltage, this would allow an almost instant check). If the limiter only displays a total, we should do the test over a longer period or the full 6min to allow for any error compensation. Talking about this subject, we should also think about an allowable error, like $\pm 1\%$ or less.
4. We should be able to change the capacity for now, but we need a secure way to block access in a race. Martin's idea with the judge password is very good, we just need to make sure that, if a judge is also racing, he should have the limiter blocked by another judge. I am only saying this because I know there will be questions... we should TRUST any judge by default anyway.
5. For the team races, the idea if a third battery already fitted with a limiter is very good, but even a quick visual check from a pontoon assistant will be ok, there is enough time. Normally driver one will go first and third, so there is time to reset and check.
6. It could be a good idea to ask the various manufacturers to agree on a "common ground": it is very easy for them to program a memory registry with the set values (capacity, voltage selection, etc) and use a standard protocol for reading them. It does not really matter if it is standard serial ASCII or Modbus or others, just use a standard protocol for these checks: this way the judge will only need one device for checking (which can be designed to read multiple protocols). They can keep the programming protected with proprietary comms, but leave a registry open for checking.

Cornel

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