

THE WINDING OF A RUBBER MOTOR FOR INDOOR FLYING

By William Scott

Published in the March 2013 Issue of Scale Staffel, William Scott, Editor

It is the first Sunday in August and it is time to test my theory that a thinner motor of the same length gives a better flight than a longer motor of the original thickness. But all of my motors broke in the winding process; okay, one came un-tide and after re-tying the motor it was to short to give me comparable data. The good thing was the plane still flew well, even though it was flying on a motor that was 10% smaller then my planned test size.

Fast forward to the first Sunday of September and another chance to test my theory. Winding up a motor of the original width and length, 1/8 x 12" the plane flies very nicely, it had a good climb, a few cruising laps and then a good glide back down that looked a little slower then the climb up. Total flight time 42 seconds. I then switch to the thinner motor of the same length, winding to the same torque, there were about 400 to 450 more winds on the motor then the original motor. The plane doesn't climb as fast as before nor as high, the cruise was hard to see because the decent was very slow and content. Total flight time 50 seconds. I next switch to the motor that is the original width but longer. I wind up the motor, this motor also has 400 to 450 more winds on it then the original motor. The climb on the longer motor was slower and just a little bit lower then the original but faster and higher then the thin motor. The real difference was at the end of the flight when the plane was gliding. The addition weight of the motor made the glide much steeper giving a best flight of 46 seconds. So far the theory works. I made a graph of my observation to make it easier to follow. The seconds are not exact; they are relative to what was observed.

My daughter gave me my next story idea, when she was tossing a wadded up paper into a trash can, she said, "she turns, she shoots, wow look at that ball fly, Scores!" Till next time, when I'll let you know what else I uncover as I learn something new everyday.

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