

Finn Hill Build and Fly Sessions

The Sam 8 model airplane club has been teaching Finn Hill Middle School students the art and science of building and flying simple indoor balsa wood model airplanes since 2013. Our main goal is to introduce middle school students to the real-life, hands-on experience of building and flying simple indoor model airplanes capable of flying for up to 2 minutes in duration. This program is a great way of introducing students to the fun and challenge of aeromodelling.

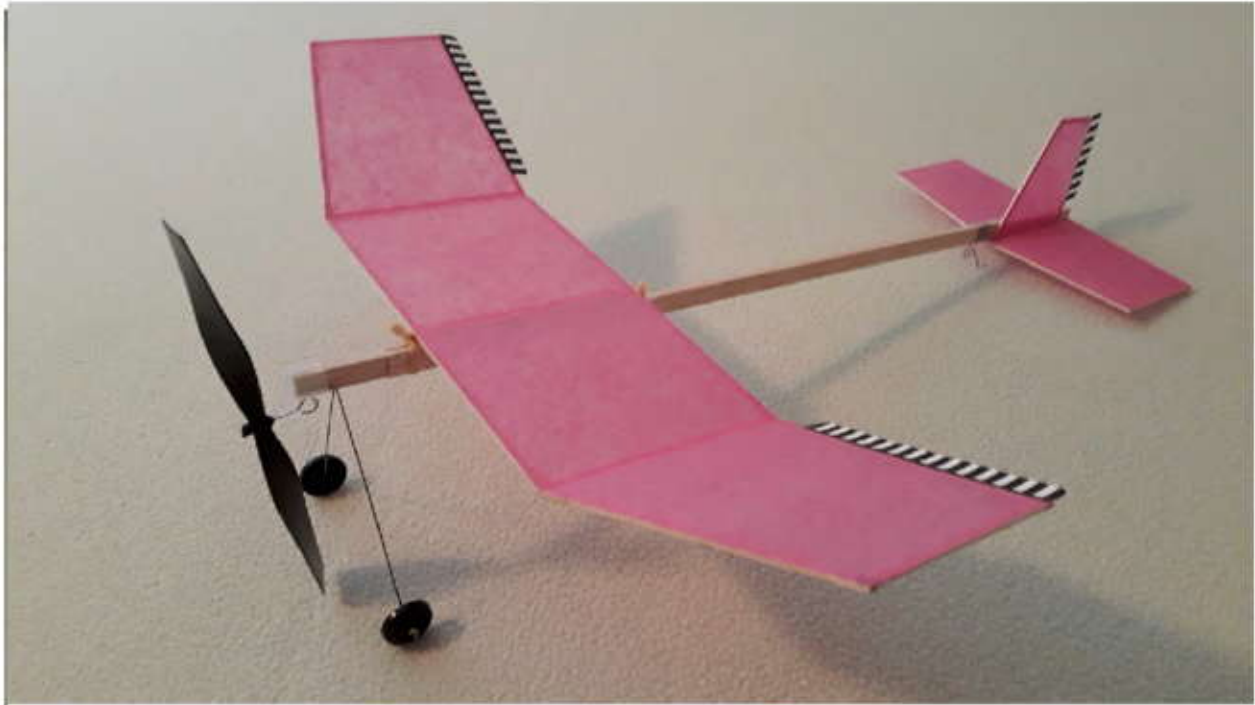
This year, we are only meeting with the students 2 more times as we got a late start on the year. Meeting dates will be April 23 and June 4th. We meet from 12:00 o'clock p.m. until 4:00 o'clock p.m.

For our second build and fly session we progress to a laser cut rubber powered model called the Mountain Lion. This model is covered with colorful tissue paper and is capable of over 1 minute flight times. The students learn to assemble several laser cut parts to make the wing panels, stabilizer and rudder, which are then covered with tissue paper using a glue stick. The students also learn how to make and stretch wind the rubber band motors that power the model airplane and how to adjust the airplane so that it circles and climbs without crashing into the walls or ceiling:



The Mountain Lion can also be flown outdoors on dry, calm days.

The final model for this year will be the Finn Hill R.O.G. (Rise-Off-Ground), which can take off and land on its own landing gear. This model's construction is similar to that of the Mountain Lion, but it has more balsa parts that the students must make by cutting balsa sticks to the correct length and angle:



The Finn Hill ROG has landing gear allowing it to take off and land from the floor. On the final build and fly session in June we normally have a "Fun" contest involving the last model airplane built by the students. The students learn how to get the longest possible flight times from their model airplanes by varying the length and width of the rubber band motors, stretch winding the rubber motors, and adjusting the circular flight path of the models. Here is link to a short video showing a typical Finn Hill build and fly session:

<https://www.youtube.com/watch?v=h1nuLHVthnU>