

Build and Fly Radio Controlled Model Airplanes

Featuring the Blu Baby with Dihedral and Aileron wings



Sponsors

- **Hobby Land Stow**
 - <http://www.hobbylandstow.com>
- **Charles River Radio Controllers**
 - <http://www.charlesriverrc.org>

Instructor

- **Brian Rickman**
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- **Mobile:** 774-249-2494
- **Email:** brian.rickman@gmail.com

Assistant Instructor

- **David Mac**
- **Mobile:** 617-903-0848
- **Email:** dave_mak@yahoo.com

Schedule

- **Week 1**
 - Topic: Introduction, cutting out foam parts
 - Materials: 1/4" sheet foam
 - Tools: Cutting board, hobby knife, metal edge ruler
- **Week 2**
 - Topic: Assembling foam parts
 - Materials: 1/4" sheet foam, 1" pink foam, 1/4" basswood stick, 1/8" plywood
 - Tools: Hot glue gun, cutting board, hobby knife, metal edge ruler
 - Adhesives: glue sticks, double sided carpet tape

- Week 3
 - Topic: Finish assembling foam parts and start Installing electronics
 - Materials: Assembled foam airframe, music wire, straws, control horns
 - Tools: Hot glue gun, hobby knife, needle-nose pliers
 - Adhesives: glue sticks
 - Electronics: transmitter, receiver, motor, ESC, servos, battery
- Week 4
 - Topic: Finish installing electronics
 - Materials: Assembled foam airframe, music wire, straws, control horns
 - Tools: Hot glue gun, hobby knife, needle-nose pliers
 - Adhesives: glue sticks
 - Electronics: transmitter, receiver, motor, ESC, servos, battery
- Next steps
 - [Free flight instruction](#) is available through the [Charles River Radio Controllers](#) club. Contact Dick Williamson by phone 978-618-5475 or email chiefinstructor@charlesriverrc.org to schedule an appointment with an available instructor.
 - Brian and/or David may also be available for flight instruction, but it is likely that we'll be teaching another class immediately after this one, so our availability will be limited.

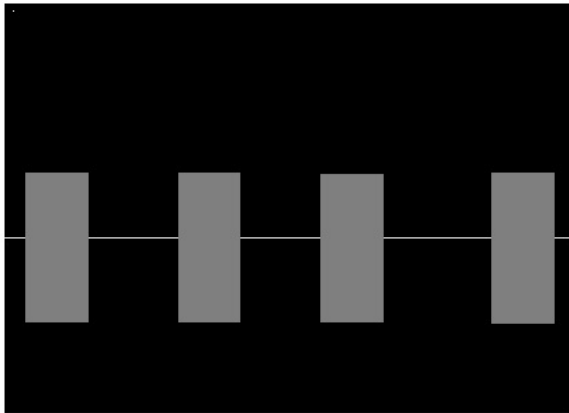
Hinging a control surface with tape

In the following pictures, black is foam, gray is tape

Bevel one side of the joint at approximately 45 degrees. Lay the two parts on a flat surface, with the edge of the joint touching and the opening facing down:



Apply tape across the top of the joint every 2 or 3 inches.



Verify that the control surface moves smoothly in both directions, then open it all the way and apply tape to the outside::

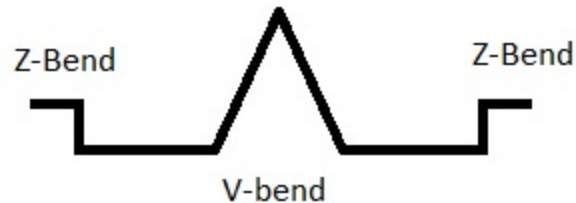


Lay the completed control surface flat. It should look like this. Verify that it still moves freely in both directions.



Bending wire to make a pushrod

- Make a z-bend at one end.
- Make a v-bend in the middle
- Measure carefully, and cut to size
- Make a z-bend at the other end



Materials used in this class

- Model Plane Foam (1.25 sheets)
- 1" thick pink foam
- 0.032" Music wire (pushrods)
- 3/32" Music wire (landing gear)
- 1/4" square basswood sticks (wing spars)
- 1/8" plywood (motor mount, dihedral wing joiner)
- #32 rubber bands
- Velcro
- Double sided carpet tape
- Blended hinge tape
- Colored packing tape
- Craft (popsicle) sticks
- Bamboo skewers
- Dubro Micro 2 Control Horn (4)
- 2" lite wheels
- 9x4.5 propeller

Electronics used in this class

- 4+ channel Spektrum (or compatible) Transmitter
- 4+ channel Spektrum (or compatible) Receiver
- 9 gram servos (4)
- Servo Y-cable
- 10+ amp Brushless motor Electronic Speed Controller (ESC) with 3A BEC
- 1100 Kv Brushless motor
- 2S - 3S LiPo Battery, 500 - 1000 Mah

Suppliers

- Hobby Land Stow (<http://www.hobbylandstow.com>)
 - Local hobby shop with friendly staff, an in-store flight simulator, and anything you need to get started in a wide variety of hobbies.

Clubs

- Charles River Radio Controllers (<http://www.charlesriverrc.org>)
 - Club meetings are held on the 3rd Wednesday of the month at the [Sudbury Public library](#), except during the summer. June, July, and August meetings are held at [Davis Field](#). Visitors are welcome at all meetings.
 - Club members fly at [Davis Field](#) almost every weekend. The most popular flying times are Saturday and Sunday mornings.
- Academy of Model Aircraft (AMA) (<http://www.modelaircraft.org>)
 - National organization representing our hobby to insure that government does not legislate us out of existence. Also provides a great magazine, low cost liability insurance, and other benefits.
- RC Groups (<http://www.rcgroups.com>)
 - Discussion forums covering all aspects of Radio Control models including planes, boats, and cars.
 - Plans for the Blu Baby can be found here:
<http://www.rcgroups.com/forums/showthread.php?t=681556>