Assembly Instructions for the following EPP models:
32” Yak-55
32” Yak-54
32” Edge 540
32” Sbach 342
33” Fenix V2
34” Freestyle
34.5” MX2

Recommended Electronics and motors:
Motor: Turnigy 2730-1500 or any equivalent motor

Speed control: Castle Creations Thunderbird 9 or equal.

Battery: 300 to 500, 2 or 3 cell, 20C rated or equivalent.

Receiver: 4 channel.

Servos: (2) HXT 500 for the tail and (1) HXT 900 for the ailerons.

Disclaimer: Fancy Foam Models has done everything we can to caution and inform the end user regarding the use of Lithium polymer battery technology. We are in no way responsible for any damage that may be caused by these batteries. Please read, understand and follow all instructions for the charger and batteries. Failure to use this battery technology properly can result in the risk of fire. If you are not comfortable with this technology, return the batteries packs and kit to us for a refund. By building the kit and using the batteries, you accept full responsibility for the safety of these batteries.

Recommended building methods and glues:
Much of the construction of this model is done by laying the parts on a flat table. For all assembly, use “Welders” contact adhesive. The hinges are also done with Welders, see our video on the web site. Hot glue can be used to attach the servos and control horns.

Starting out:
Look over the parts and dry fit them together to check for proper fit.

Painting:
It is easiest to paint the parts before assembly. Card stock can be used to make templates for stripes, checkers, ect... Epp does is not affected much by solvents so Krylon, Testors and airbrush paints can be used.

Horizontal parts assembly:
Glue the spar tube into the slot in the bottom of the wing.

Cut a 6” long piece of 1.5mm carbon pushrod. Cut a v-slot in the bottom of the elevator just behind the hinge bevel and glue in the 6” carbon piece.
Hinge the ailerons to the wing and the elevator to the horizontal stabilizer. (A Welders glue hinge instructional video is on the web site.)

Glue together the horizontal pieces; nose, wing, rear fuselage and horizontal tail. Note: The wing spar goes on the bottom and the aileron and elevator hinges go on top.

Glue the lower vertical fuselage pieces to the horizontal assembly making sure it is square.

Lower fuselage to horizontal – Assembly:

If using a stick mount, cut a slot in the horizontal nose piece and glue the mount in place. For a firewall plate wait until the airframe is built before installing. Set motor mount with NO right or down thrust. It is not required.

If installing a single aileron servo then cut a pocket for it now in the nose piece. Lay the vertical pieces on the horizontal assembly to mark and cut clearance pockets for the aileron servo.
**Landing Gear (optional):**

Cut 2 pieces of the 1.5mm carbon, 8” long and two pieces 1” long. Glue them together as shown with a 1/8” overlap at a 45 degree angle. Cut a 6” piece of string and wrap the joint with it in two directions. CA the string to secure the axel.

Install the gear legs through the vertical fuselage and into the bottom of the wing, just behind the leading edge, but not through the wing. When you have the axles parallel and even glue the gear legs in place. Glue the gear pant to the gear leg and the fuselage side. Slide the wheels onto the axels. Slide the wheel pant onto the axle and secure in place with a drop of CA leaving enough room for the wheel to spin freely.

**Final assembly:**

Install the aileron servo and glue the top vertical fuselage to the main assembly. Then cut pockets and install the tail servos. The rudder servo goes on the left. Hinge the rudder to the aft of the vertical fuselage pieces.

Install the motor onto the motor mount and velcro the speed control and receiver to the lower left side of the fuselage. Use an exacto knife to slot the control horn locations in the ailerons, elevator and rudder. Glue the horns in place.

With all the surfaces set to zero, measure the distance between servo arm holes and control horn holes. Cut a piece of 1.5mm carbon rod for each push rod to the measured lengths. Cut a 1.5” long piece of 1/32” wire and make a z-bend on one end. Slide a 1” length of heat shrink over each end of the carbon rod and then slide in a z-bend wire. Shrink the heat shrink tubing with a heat gun or flame. The z-bend wire is not glued in position yet and can be moved for final adjustments.

Remove the servo arm and assemble the pushrods to the servo arm and control horns. With the servo centered reattach the servo horn. Make any final adjustments to the z-bend location. Use regular (not foam safe) thin CA to secure the z-bends to the push rods by placing a drop at each end of the heat shrink tubing. If you get some CA on the servo or control horn this is ok and moving the controls will allow the z-bend to break loose.

Note: This push rod setup will act to save your servos. In the event of an impact the glue holding the z-bend to the push rod will likely give before the servo gears. If the z-bends start to slide in the heat shrink a drop of CA will secure them again.
Motor installation

Install the motor into the stick motor mount and velcro the speed control and receiver to the lower left side of the fuselage.

Flight set-up:

Use double stick Velcro on the battery and airframe to secure the battery to the bottom of the horizontal fuselage in a location that gives the model proper balance. Adjust the battery location back and forth to suit your flying style. Use your computer radio to set the final sub-trims, exponential and dual rates. Double check the control directions before your first flight. **With proper CG, the plane should fly nearly the same upright or upside-down.** Good pilots experiment with various battery locations until the CG feels just right.

For indoor flying, we use 2 or 3 cell lipo packs rated at 20C. Batteries of 300 to 480 mah are perfect for giving good flight times and plenty of power. The final airplane weight should be between 6.0 and 7.5 oz.

Center of Gravity:

Yak-55 is 2.75” behind the leading edge of the wing.
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Edge 540 is 3.5” behind the leading edge of the wing.
Sbach 342 is 3” behind the leading edge of the wing.
Freestyle is 3” behind the leading edge of the wing.
MX2 is 3.75” behind the leading edge of the wing.
Fenix V2 is 3” behind the leading edge of the wing.

We hope you enjoy your airplane.

Thank You,
Mike & Niki Bailey
Fancy Foam Models