The EZ Build Stik 40 is designed to be flown by novice to expert. It is strong and lightweight and, depending on the power set up, can do many 3D maneuvers. It can be set up with flaperons or spoilerons.

It is designed to be assembled quickly without any cutting, sanding, painting or fitting and by using only hot glue. With the optional power package, everything is simple plug and play with no soldering required.

Specifications:

•Wingspan 40”

•Length 32”

•Approx. AUW is 17.0 ounces + 4.2 ounce 1300/3 battery = 21.2 ounces AUW

•Optional Power package (no soldering required)

- Four 9 gram servos
- One 2834/16, 1170 kv Keda motor with bullet connectors, X mount and prop adapter
- Motor mounting screws
- One 20 Amp ESC with bullet connectors and battery connector (Deans or XT60)
- 10” x 5” prop

•Receiver (not included with kit)- Normally a 6 channel receiver is used so that the independent ailerons can be set up as flaperons or spoilerons. A four channel receiver can also be used, but a “Y” connector (not included) must be used on the ailerons. Flaperons cannot be used in this configuration.

•Battery- 1300/3 cell battery is required (not included with kit).

•Center of gravity: The wing cord is 9.25”. The CG can be set from 25% (2.31” from the leading edge of the wing) to 33% (3.05” from the leading edge of the wing). It is recommended to start out at 2.31” for the first flights since that gives the most stable flying. The CG is adjusted by moving the battery forward or backwards.

Tools required for the build:

- Hot glue gun and low temperature glue
- .050” allen wrench for wheel set collars
- 1.5 mm allen wrench for linkage stoppers
- #1 Phillips screwdriver for servo arms and motor mounting screws

•***Included with the kit:***

- Wing
- Vertical fuse (2 pieces)

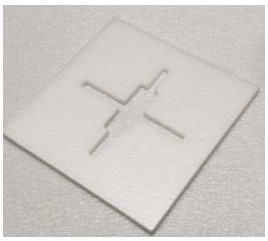
- Horizontal fuse
- Two 15” landing gear struts with axles and heat shrink
- + fuse assembly fixture

•Parts bag consisting of:

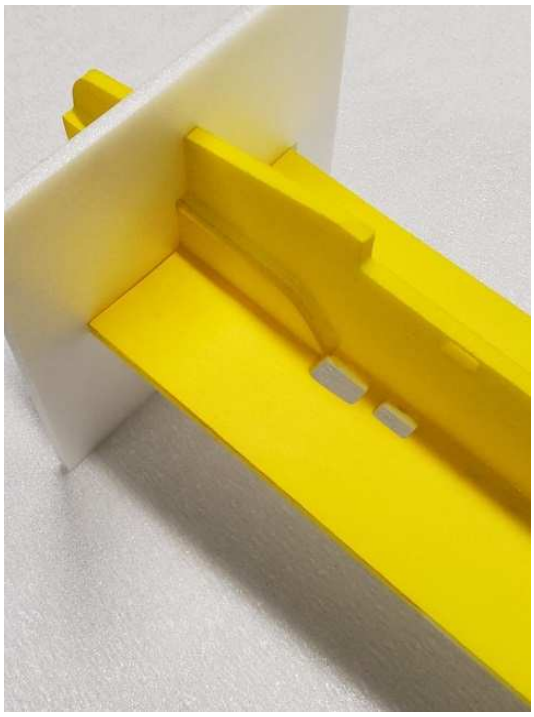
- Four horns with assembled with linkage stoppers, two rights, two lefts
- Velcro, hook and loop
- Control rods
    - Aileron, two 2.75” overall length with Z bend
    - Elevator, one 10.25” overall length with Z bend
    - Rudder, one 9.25” overall length with Z bend
- One motor mount
- Two wheels
- Two set collars with setscrews
- Two landing gear skirts
- Rudder and elevator stand offs

•*Assembly*

- Glue the top and bottom of the vertical fuse into the horizontal fuse, lining up the tabs with the slots in the horizontal fuse. Place the + fixture over the front of the fuse to hold it together and keep it at 90 degrees. Use a bead of hot glue in the four corners of the assembly. Keep the two parts at 90 degrees. Use a full, continuous bead of hot glue in each corner. Note: Use hot glue sparingly. Too much hot glue will make the plane too heavy and affect flight characteristics.



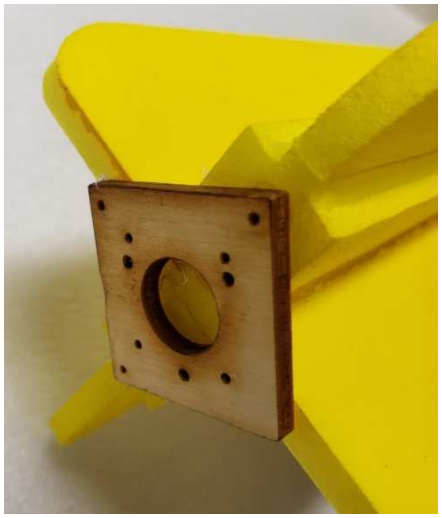
+ Fixture



Vertical/horizontal fuse

Vertical/horizontal fuse

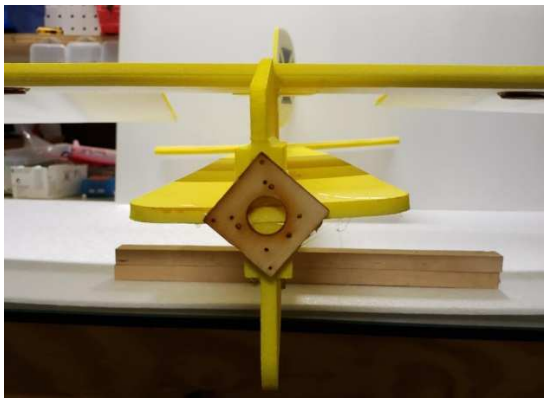
o Hot glue the motor mount to the front of the fuse at a 45 degree angle. There is approximately 5 degrees of downthrust build into the nose of the plane.



Motor Mount

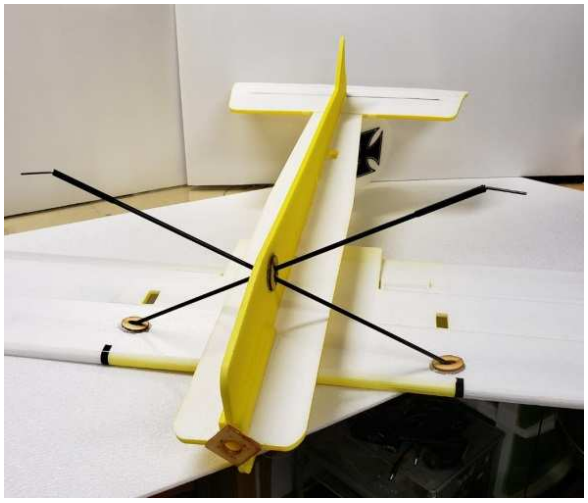
o Lay the wing upside down on a flat surface. Test fit the fuse into the guides on the wing. The rudder needs to hang over the edge of the flat surface. Remove the fuse, apply a bead of hot glue to the groove and reinstall the fuse keeping is at 90 degrees from the wing using the + fixture. Apply a fillet of hot glue along the guides where it meets the top of the vertical fuse.

Hot glue wing/fuse



Be sure wing/fuse are perpendicular with each other

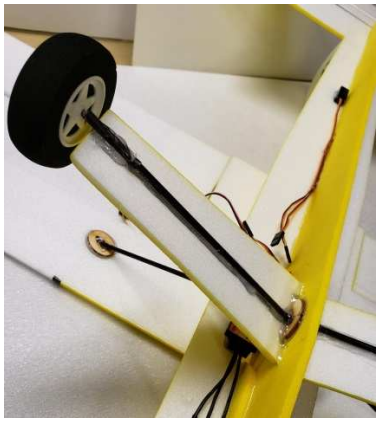
o Fit the landing gear struts through the holes on the bottom of the fuse and into the strut guides on the bottom of the wing. Make sure the axles are straight and parallel to the leading edge of the wing. Check that the struts protruding from the fuse are the same length on either side and make sure the fuse is still perpendicular to the wing. Hot glue the struts to the fuse and the wing. Use firm pressure to inject the hot glue fully into the holes. Let the glue harden for a few minutes.



Struts installed

Be sure struts are equal length from fuse to axle with fuse perpendicular with wing and axles are parallel with leading edge of wing before gluing.

o Use hot glue to attach the strut skirts to the fuse. Align the top of the skirt so that it is parallel with the reference holes. Put some hot glue on the struts, especially at the bottom.

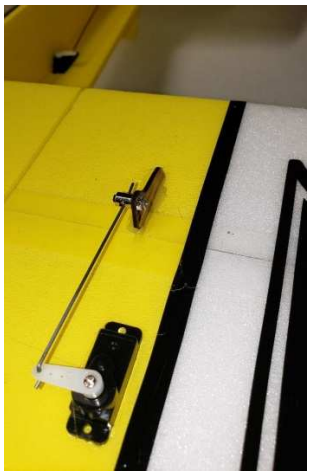


Strut skirt installation

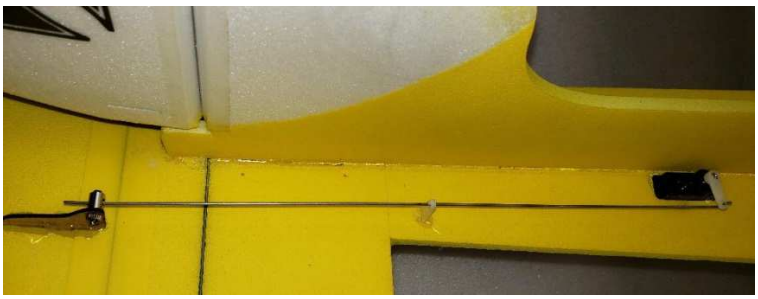
o Install the wheels and the set collars using the set screws and put a small dab of hot glue on the end of the axle so that if the set collars do come loose, they won't come off.

Wheels/set collars/hot glue

o Using hot glue, install the four horns on the control surfaces. The setscrews for the aileron linkage stoppers face towards each other. The setscrew for the elevator linkage stopper faces towards the plane and the setscrew for the rudder linkage stopper faces upward.



Aileron horns/linkage stopper installation



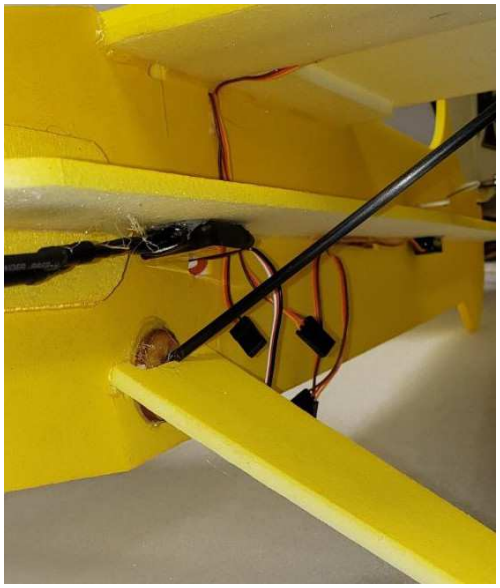
Elevator horn/linkage stopper/standoff installation

Rudder horn/linkage stopper/standoff installation

o Before gluing the servos to the plane, it is recommended that a servo tester be used to check that the servos are working properly and the "zero" is correctly set. Glue them into the plane with the servo wires facing forward and the servo arms at 90 degrees.

o Install the rods in the farthest holes in the servo arms. Use hot glue to install the rudder and elevator standoffs half way between the linkage stopper and the servo. Be sure the rod is straight and not binding. Adjust the linkage stoppers so that with the servo arms at 90 degrees, the control surfaces are flat. See pictures above.

o Route the servo wires to the left side of the plane, below the wing and below the horizontal fuse using the slots provided in the fuse. Secure the loose wires with hot glue.



Servo wire routing

o Mount the motor to the motor mount such that the motor wires are oriented to the bottom, left hand side (when looking towards the front of the plane).

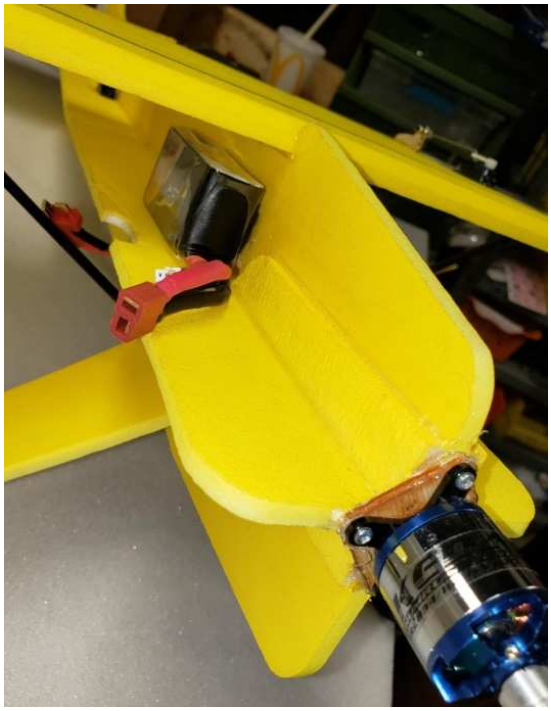
Motor/prop/ESC installation

o Connect the ESC to the motor. Note, a servo tested can be used to check the rotation of the motor. Warning, always do this without a prop in place!

o Use a dab of hot glue to mount the ESC to the right, bottom side of the horizontal fuse.

o Install your receiver and bind and set up the plane in your radio. It is highly recommended that the throttle cut feature be used if your radio is equipped with one. Mount the receiver on the left side of the plane at the bottom of the fuse under the wing.

o Mount the Velcro for the battery on the bottom, right hand side of the fuse so that the CG is 2.31" from the leading edge of the wing. Note: Attach the "hook" side of the Velcro to the fuse. The "loop" side should be attached to the battery.



Battery/Velcro installation

o Install the prop and the prop adapter on the motor shaft. Numbers on the prop go forward. It is recommended to balance the prop before installing.

o Double check the correct direction of the control surfaces.

o For the initial flights, the control surfaces can be set to +/- ½" (1" total travel) and increased after you become more confident with the plane.