

Web Site: www.parallax.com Forums: forums.parallax.com Sales: sales@parallax.com Technical: support@parallax.com Office: (916) 624-8333 Fax: (916) 624-8003 Sales: (888) 512-1024 Tech Support: (888) 997-8267

\triangle WARNING! READ THIS BEFORE ASSEMBLY OR OPERATION!

Failure to read and abide by these warnings and precautions could result in bodily injury or property damage.

- WARNING: LACERATION HAZARD. Rotating and stationary ELEV-8 v3 quadcopter rotors can cut skin and underlying tissues. Stay away from a powered ELEV-8 quadcopter; never become complacent during operation.
- WARNING: ENTANGLEMENT HAZARD. Secure long hair and loose clothing or jewelry when building, testing, customizing, and operating your ELEV-8 v3 quadcopter to avoid entanglement with motors.
- WARNING: EYE HAZARD. Always wear eye protection when performing or observing ELEV-8 v3 quadcopter assembly, repair, customization, operation, or flight.
- WARNING: ELECTRIC SHOCK HAZARD. Never handle the ELEV-8 Flight Controller, the ELEV-8 Power Distribution Board, or any electrical connections on the ELEV-8 v3 quadcopter while the battery is connected. It is your responsibility to ensure that all electrical parts are properly protected, isolated, and insulated.
- Review and abide by the Academy of Model Aeronautics "National Model Safety Code" and "Utilizing Failsafe, Stabilization, and Autopilot systems."
- Customer agrees to maintain their own liability insurance.
- Inform yourself of and follow all current federal, state, and local laws applicable to your intended use of your quadcopter in the area where you plan to operate your ELEV-8 v3. Review the FAA's rules in their entirety; you are responsible for following them.
- An ELEV-8 v3 quadcopter assembled and used as directed in this document is a teleoperated hobby model UAV and does not constitute the use of an autonomous Unmanned Aircraft (UA). Any change or modification you make to the hardware or firmware is done so at solely your own risk.
- This kit is not for beginners. Intermediate to advanced mechanical skill is required for building and flying an ELEV-8 v3 quadcopter. RC aircraft experience is highly recommended.

- Follow the assembly and operating instructions carefully; incorrect assembly of, negligent use of, or lack of maintenance to your ELEV-8 v3 quadcopter could cause risk of catastrophic equipment failure, bodily injury to you or others, and property damage.
- For every transmitter used, perform a range check of the radio link between the RC transmitter and RC receiver without the propeller blades installed.
- WARNING: Lithium-Ion Polymer (LiPo) batteries are volatile. Failure to understand and abide by all safety instructions and warnings for your battery/charger may result in fire, personal injury and property damage. Always disconnect and store the battery in an appropriate container when not in use.
- Store your ELEV-8 v3 quadcopter and all related items out of reach of children, pets, and those who do not know how to use them safely.
- Only operate your ELEV-8 v3 quadcopter in an area with no people, birds, unsecured pets, or livestock, which can be harmed by contact with rotating blades. For example, children and dogs may try to jump and catch a flying quadcopter, or may run to investigate one that has just landed.
- Do not operate your ELEV-8 v3 quadcopter in confined spaces, crowded areas, or within 25 feet of any potential hazards. All observers should wear eye protection and stand a safe distance *behind* the operator.
- Only operate your ELEV-8 v3 quadcopter in an environment where you can maintain unobstructed visual contact with it. Do not operate at night, or where there is fog, smoke, or dust that could limit visibility.
- Keep your ELEV-8 v3 quadcopter dry! Do not submerge your ELEV-8 v3 quadcopter or operate it in rainy or damp conditions. Beware of sprinklers and of landing in wet vegetation.
- Check the wind speed before flying your ELEV-8 v3 quadcopter. Even a light breeze can make flying difficult for beginners. No one should fly in high winds.

DISCLAIMER OF LIABILITY: PARALLAX INC. IS NOT RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES AND PERSONAL INJURIES, INCLUDING THAT TO LIFE AND HEALTH, RESULTING FROM THE CUSTOMER'S APPLICATION AND USE OF ANY PARALLAX INC. PRODUCTS INCLUDING THE ELEV-8 V3 QUADCOPTER. YOU, THE CUSTOMER, ASSUME FULL AND UNLIMITED RESPONSIBILITY FOR ALL OF YOUR ELEV-8 V3 QUADCOPTER APPLICATIONS AND USES.

ELEV-8 Quadcopter v3 Assembly Instructions

- 1. READ THE IMPORTANT SAFETY INFORMATION ON THE OTHER SIDE OF THIS PAPER BEFORE BEGINNING ASSEMBLY!
- 2. Go to <u>http://learn.parallax.com/elev-8</u> to access the ELEV-8 v3 Assembly Guide. (Note: Be sure to select v3; older versions are posted.)
- 3. Inventory each bag in your ELEV-8 v3 Quadcopter Kit using the Bill of Materials below. If you are missing any parts, contact <u>sales@parallax.com</u> directly for assistance. (Note that some items are small sub-kits with parts not listed separately. Parts and quantities subject to change without notice.)

| ELEV-8 Quadcopter v3 Kit Contents (#80300) | | | ELEV-8 v3 Electronics Kit Contents (#80370) | | | ELEV-8 v3 Hardware Kit Contents (#80360) | | |
|--|-----|----------------------------------|---|-----|-------------------------------------|--|-----|---------------------------------|
| Part # | Qty | Description | Part # | Qty | Description | Part # | Qty | Description |
| 80204 | 1 | ELEV-8 v3 Flight Controller | 750-90010 | 4 | KEDA 1000kV Outrunner Motor | 570-80061 | 1 | ELEV-8 Saddle Washer 24-pack |
| 700-10003 | 1 | Safety Eyewear | 750-90015 | 4 | Parallax xRotor 20A ESC | 570-80300 | 1 | ELEV-8 v3 Hardware Pack |
| 721-80040 | 2 | Propeller, 11x4.5 MRP, L, 2-pack | 800-00040 | 1 | 3-wire extension cable, 4" | 700-00098 | 4 | Vibration Damper, 80g |
| 721-80041 | 2 | Propeller, 11x4.5 MRP, R, 2-pack | 800-00043 | 6 | 3-wire ext. cable, 6", beveled plug | 700-00099 | 12 | Zip Tie, 5.9" |
| 80350 | 1 | ELEV-8 v3 Airframe Kit | 80361 | 1 | ELEV-8 Power Distribution Board | 700-00106 | 1 | Loctite 242 |
| 80360 | 1 | ELEV-8 v3 Hardware Kit | | | | 700-00140 | 4 | Grommet, fits 3/8" dia x 1/32" |
| 80370 | 1 | ELEV-8 v3 Electronics Kit | ELEV-8 v3 Airframe Kit Contents (#80350) | | | 700-00145 | 4 | Plug, fits tube 3/4" outer dia. |
| | | | Part # | Qty | Description | 700-10025 | 1 | Parallax Combination Wrench |
| | | | 721-80007 | 4 | ELEV-8 Landing Gear | 725-00067 | 1 | 1.5 mm Hex Key |
| | | | 721-80301 | 1 | ELEV-8 v3 FC Cover | 900-00021 | 2 | Hook and Loop Cable Tie |
| | | | 721-80302 | 1 | ELEV-8 v3 Isolation Plate | 900-00105 | 4 | Inches of Adhesive Foam Strip |
| | | | 721-80303 | 1 | ELEV-8 v3 Top Chassis Plate | 900-00106 | 1 | Foam cube, black open-cell |
| | | | 721-80304 | 1 | ELEV-8 v3 Bottom Chassis Plate | | | |
| | | | 721-80305 | 4 | ELEV-8 v3 Motor Mount | | | |
| | | | 730-00065 | 2 | ELEV-8 v3 Boom, Clear | | | |
| | | | 730-00066 | 2 | ELEV-8 v3 Boom, Blue | | | |

Revision History: v1.0: Original release.