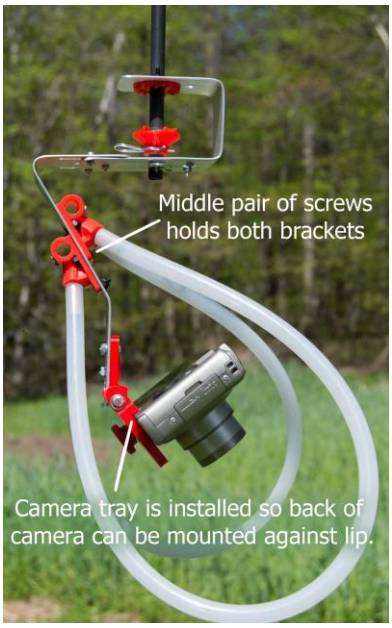
Assembly and Use Guide for the KAPtery Aerobee Rig Kit

See this guide and a parts list at KAPtery.com/guides

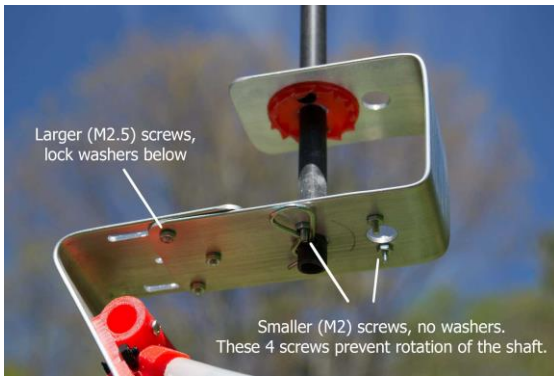
Technical support: http://kaptery.com/contact/

Assembly

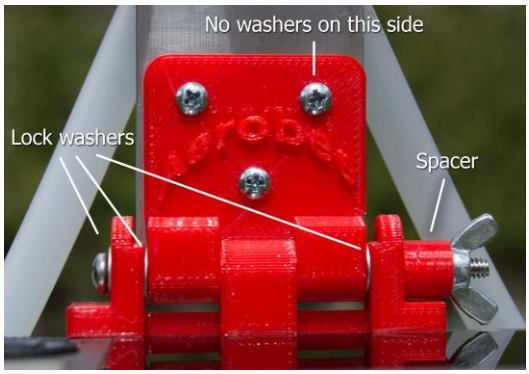


Tools: small straight screwdriver, small Phillips screwdriver, pliers, thread locker solution.

1. **Attach leg brackets** as shown with nylon screws and nuts. Thread locker can be used. The middle pair of nylon screws goes through both leg brackets.
2. **Attach the round JerkPan escapement plate** as shown with two nylon screws from below and nuts on top. Thread locker can be used.
3. **Connect the two aluminum frame parts.** Overlap the upper frame part underneath the lower frame part. Use three M2.5 8mm machine screws with lock washers and nuts underneath.
4. **Insert four M2 6mm machine screws** in the remaining small holes in the upper frame part and tighten nuts on the lower side. No washers needed, but thread locker is good. These bolts just keep the suspension shaft from rotating (they catch the lower cotter pin).
5. **Assemble the two parts of the hinged camera tray.** The tray can be installed with the flat side forward (for the camera in portrait mode) or the side with the lip forward (for the camera in landscape mode). Insert the long Phillips head machine screw (2 ½" 6-32) with lock washer (5/16"). Two additional lock washers must be inserted as shown as the bolt is slid through. Push the washers into the slot with a hard object. Slip the plastic spacer over the bolt end, and finish with the wing nut.



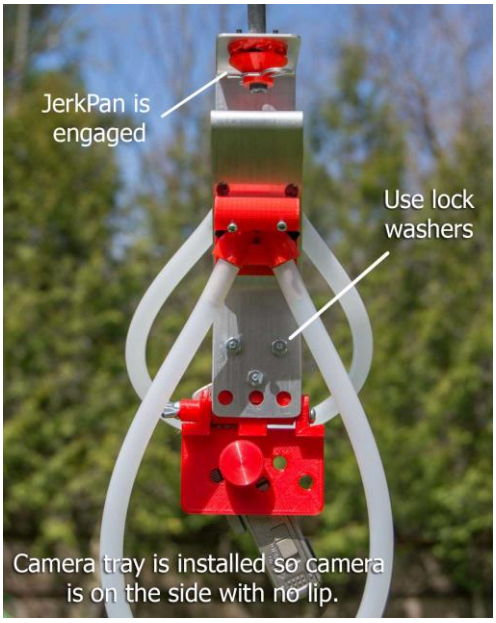
6. **Attach the camera tray assembly** to the aluminum frame with three 4-40 3/8" Phillips head machine screws (larger than others). Place lock washers (1/4") under the nuts and tighten well.
7. **Attach white PET tubing.** Insert wooden dowel pieces *all the way into* the angled leg bracket tubes. Slip the larger diameter PET tubing over the dowel. Make a loop by attaching the other and of the tubing to the same bracket (for portrait mode) or the other bracket (for landscape mode). The tubing can be curved away from the camera by firmly bending it, but do not put too much stress on the connection to the leg brackets while bending.



8. **Attach one or two additional PET tubing loops.** The smaller diameter tubing fits into the horizontal tube of the leg bracket. Those loops can provide additional protection from front or back impacts or can be attached (taped or tied) to the other loops to make them more rigid. To lock the position of those loops, insert set screws (N0. 2 size 3/16" pan head sheet metal screw) into the holes in the brackets.

9. **Attach camera on camera tray.** To use the lip against the back of the camera to prevent rotation around the tripod screw, find a hole that works for your camera, or drill a new ¼" hole. If the new hole must be too close to an existing hole, the existing hole can be filled with melted plastic (PLA filament is included). Melt the filament with a soldering iron and dab it into the hole. To attach the camera without using the lip, use an existing hole that balances the camera side to side. The tripod screw should turn freely in the hole or it is hard to tighten and might strip the threads in the camera tripod socket.
10. **Attach the suspension shaft.** For normal use, insert the 5/16" diameter shaft of a KAPtery pendulum or Picavet suspension all the way through both holes in the upper frame part. Secure the shaft with two cotter pins, one beneath the frame and one between the two holes (for backup). For most point and shoot cameras, the holes closest to the leg brackets will balance the rig well. For larger cameras, the other pair of holes can be used.
11. **Balance the rig.** Loosen the three screws holding the two frame parts together and slide the frame parts until the rig is balanced while hanging by the suspension shaft. *Tighten the nuts (with lock washers) very securely*.
12. **JerkPan mode.** The JerkPan allows the rig to rotate around the suspension shaft when rocking motion of the rig engages the two parts of the JerkPan escapement. To use the JerkPan, insert a cotter pin to lock the lower JerkPan part onto the shaft. Insert a second cotter pin in a hole beneath the JerkPan (for backup). The JerkPan works best with a pendulum.

To improve camera protection, connect tubing loops so they cannot splay outwards, or use additional tubing.



Proper camera tray installation and tubing configuration with the camera in portrait mode. The JerkPan is engaged, but it should have another cotter pin below it.