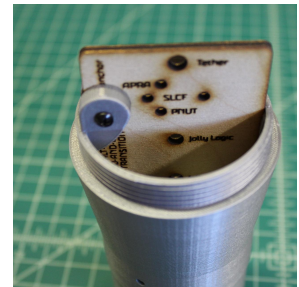
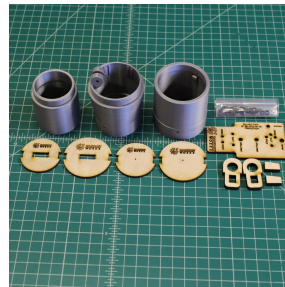


Bidirectional BT-70 and BT-80 3D Printed Transition Product Documentation

Rocketry Works' 3D printed bidirectional BT-80 and BT-70 transition can be oriented on your model large end up or large end down, and features convenient threaded access to an internal altimeter bay with static ports that equalize pressure between the ambient altitude and the altimeter inside. The transition also comes with a plywood altimeter sled pre-drilled to support common altimeters: The Pnut, APRA, and Stratologger CF by PerfectFlite, as well as the test flight suitable Jolly Logic Altimeter Snap Mount. Also included for each end of the transition are flat plywood bulkheads for the payload side, and slotted plywood bulkheads with shock cord mounts. We also include mounting hardware to secure the PerfectFlite altimeters to the plywood sled, and to secure the sled to the transition. Some assembly required.



Choosing a Flat Bulkhead or a Bulkhead with Shock Cord Mount

To aid in threading the shock cord into the shock cord mount, the shock cord mount protrudes slightly from the end of the transition. This works well for the shock cord end of the transition, but you will likely want to use the flat bulkhead for the payload side of the transition to prevent a forward oriented shock cord mount from damaging a fragile payload. In either case, we recommend epoxying the bulkhead into place to best secure the bulkhead in the transition and to prevent ejection gas infiltration.

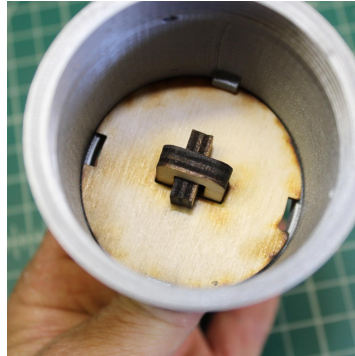
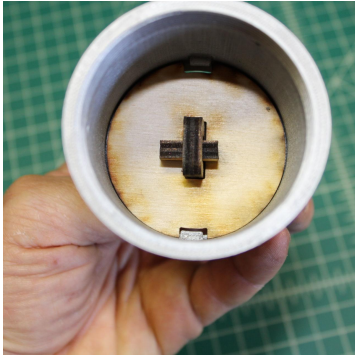
Assembling the Shock Cord Mount



The plywood shock cord mount secures in the slotted bulkhead with an angled plywood cross bar. Assemble the parts and secure the crossbar and the back of the shock cord mount with wood glue or epoxy.

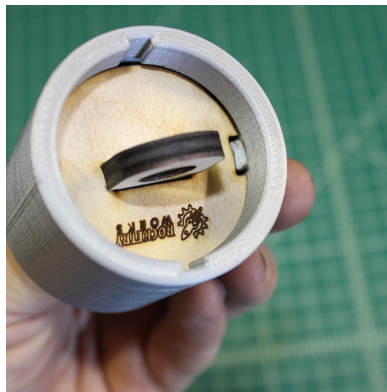
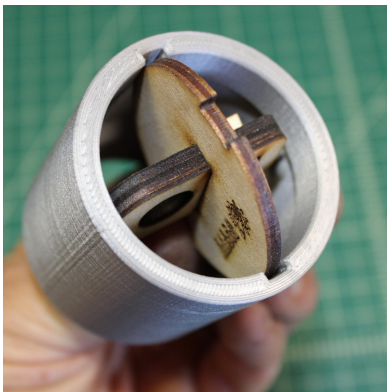
Inserting the Large Bulkhead

Insert the large bulkhead into the threaded end of the large coupler, aligning the tabs with the tabs inside the coupler. Rotate the bulkhead 90 degrees to secure the plywood between the tab and the coupler lip. Epoxy the circumference of the inside to better secure the bulkhead and to prevent ejection gasses from infiltrating.



Inserting the Small Bulkhead

Insert the small bulkhead sideways through the slots in the non-threaded end, then rotate to align with the tabs inside the coupler. Rotate the bulkhead 90 degrees to secure the plywood between the tab and the coupler lip. Epoxy the circumference of the inside to better secure the bulkhead and to prevent ejection gasses from infiltrating.



Plugging the Aft Static Ports

Use tape or epoxy to plug the set of static ports aft of the transition; only use the static ports forward of the transition. Static ports aft of a change in airframe diameter can produce unreliable altimeter readings.