

SPIKE

Spike was developed with level one certification in mind. Easy to build and very durable, Spike offers the novice flyer an entry level to high power and the advanced flyer a reliable, solid rocket for every day flying. Spike can be built two ways, with the ring fin aft or forward.

This kit features:

- Through the wall fin mounting
- Fiberglass molded nose cone
- Pre-fiberglassed and pre-slotted body tube
- Pre-fiberglassed ring fin
- Baltic Birch fins and centering rings
- 38mm motor mount
- Tubular nylon shock cords
- Shock cord mounting hardware

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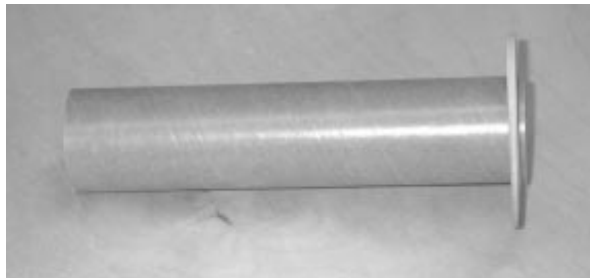
List of Materials:

- (1) Fiberglass nose cone
- (1) Pre-fiberglassed, slotted body tube
- (4) Birch plywood Fins
- (1) Nose bulkhead
- (1) Pre-fiberglassed ring fin
- (1) upper centering ring, drilled
- (1) Lower centering ring
- (1) 38mm motor tube
- (2) Eye-Bolts
- (4) Nuts
- (4) Washers
- (1) Tubular Nylon shock cord
- (1) launch lug

Construction

Please read and understand each step. The construction methods used in this kit differ from others in many ways. It is important to follow the instructions to ensure you get the most out of your kit.

Using Epoxy, glue the lower centering ring onto the 38mm motor tube as shown. The lower centering ring is the undrilled ring. Leave 1/8" of motor tube exposed as shown.



Assemble the forward centering and eye-bolt as shown. This becomes the shock cord mount. Apply a small amount of epoxy or thread lock to the bolt to ensure it does not loosen over time.



Epoxy the forward centering ring onto the motor mount tube as shown. Leave 1/8" of motor tube exposed. Make sure the eye bolt is oriented as shown. This provides clearance for the bolt when you install the motor mount assembly into the main body tube.

Ensure the centering ring is perpendicular to the motor tube and that no epoxy runs down to motor tube. Allow to cure completely.



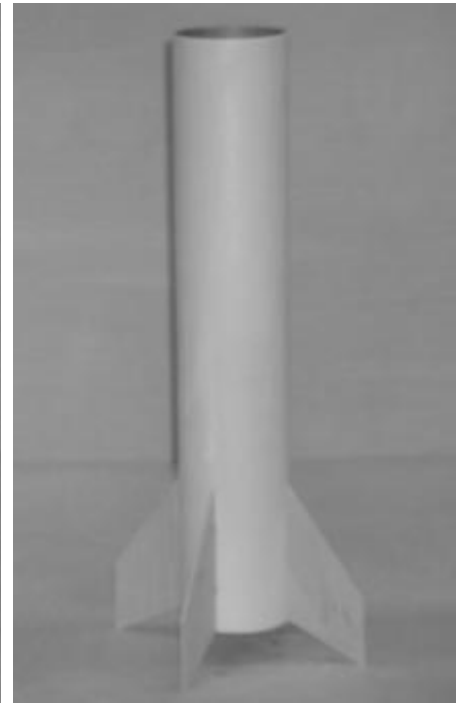
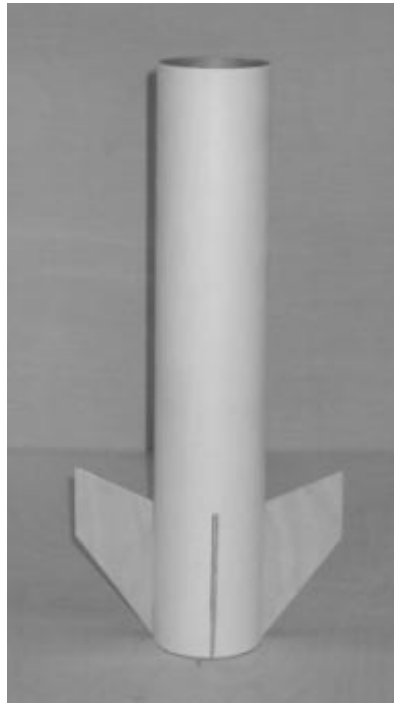
Securely tie the shock cord to the eye-bolt. Apply a drop of CA adhesive or epoxy to the knot to prevent it from coming untied. Tuck the remaining shock cord inside the motor tube temporarily. This makes it much easier to slide the motor mount assembly into the main body tube.



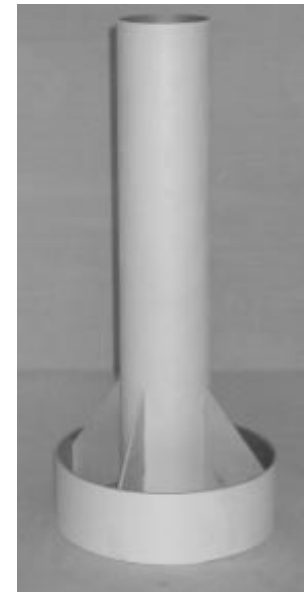
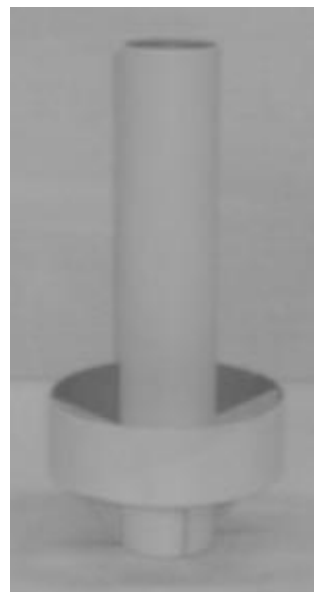
Slide the motor mount tube assembly into the slotted main body tube so that the aft centering ring is recessed 1/8" into the body tube. Once satisfied with the fit, remove the assembly and apply epoxy to the inside of the main body tube where the rings will rest and slide the motor assembly into place. When satisfied with the fit and position, set aside to cure completely.



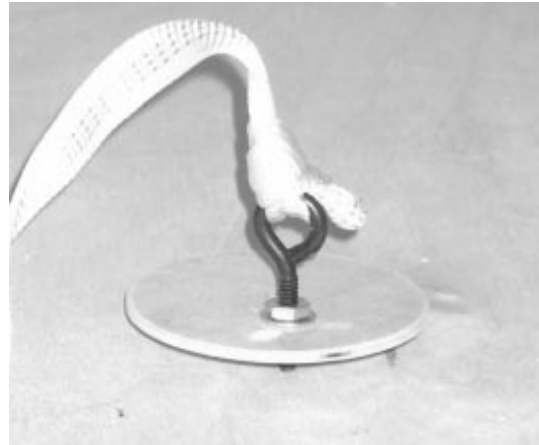
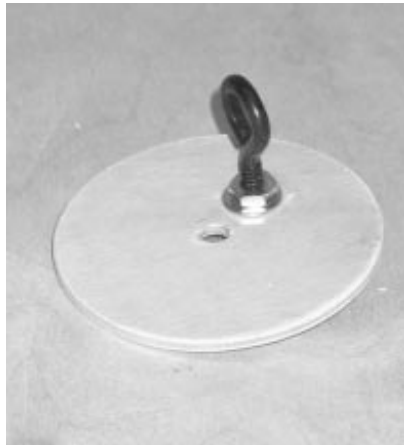
Epoxy the four plywood fins into place as shown in either picture. Both configurations are stable. The downward fin design (right picture) offers a more conventional look while the upward fin design is more radical looking.



Epoxy the ring fin as shown. It is important to get a good glue joint as the ring takes a lot of stress. Once all four fins are epoxied, set aside to cure completely.



Assemble the nosecone bulkhead with the remaining eye-bolt as shown. Remove the shock cord from the motor tube and securely tie the end of the shock cord to the eye bolt as shown. Secure with CA or epoxy.



Glue the nosecone bulkhead into place in the nose cone. **DO NOT FORCE THE BULKHEAD INTO PLACE, THIS WILL DEFORM THE NOSE CONE.**

Use a generous amount of epoxy to secure the bulkhead into place. Stand the nosecone up with the tip down while the epoxy cures.



Epoxy the launch lug to the body tube as shown. Ensure the launch lug is straight. Allow to cure completely. Drill a 1/4" pressure hole in the body tube to prevent the nosecone from being pushed off during flight.



Your Spike is now ready to fly. We recommend a 24" to 30" parachute. We recommend you use a G motor for the first flight, and use a launch rod no longer than 48".

DO NOT FLY YOUR SPIKE WITH A MOTOR GREATER THAN 300ns AVERAGE THRUST, YOU MAY DESTROY THE RING FIN.



We hope you enjoy your Spike. We look forward to any comments you have.

Happy Flying!

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