

Model Rocket Building Tips



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Gluing Things

When properly used, glue makes a joint that is stronger than the material that it is attached to!

- Use yellow glue to attach wood, paper, and cardboard to each other.
- Use plastic cement to attach plastic parts to each other.
- Epoxy is overkill for model rockets and is rarely needed.
- If in doubt, read the directions!



Using Plastic Cement

To make the strongest possible joints:

- Put the parts together without glue to test the fit
- Put a *thin* layer of glue on both parts
- Press the parts together and hold them or clamp them that way until the glue dries completely



Using Yellow Glue

To make the strongest possible joints:

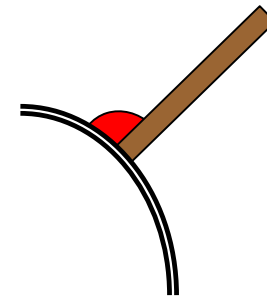
- Use sandpaper to roughen any glossy surfaces
- Put the parts together without glue to test the fit
- Put a thin layer of glue on both parts
- Let that thin layer dry for awhile
- Put another thin layer of glue on both parts
- Press the parts together and hold them or clamp them that way until the glue dries completely



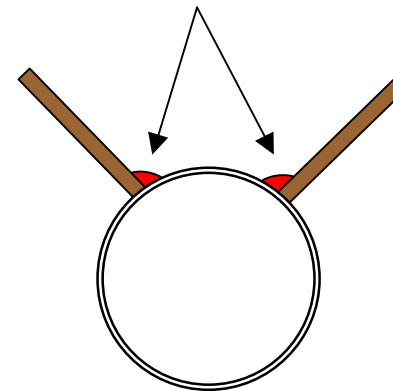
Fillets

Any angle joint can be reinforced using more glue. This includes fin joints, centering ring joints, and launch lug joints.

- Put a bead of glue along the joint between the parts.
- Smooth out the glue with a damp finger
- Let dry before moving on to the next ones.

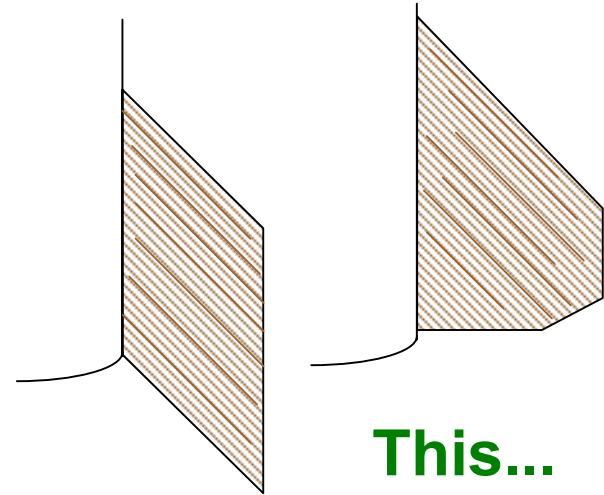


*Save time!
Do two at once!*

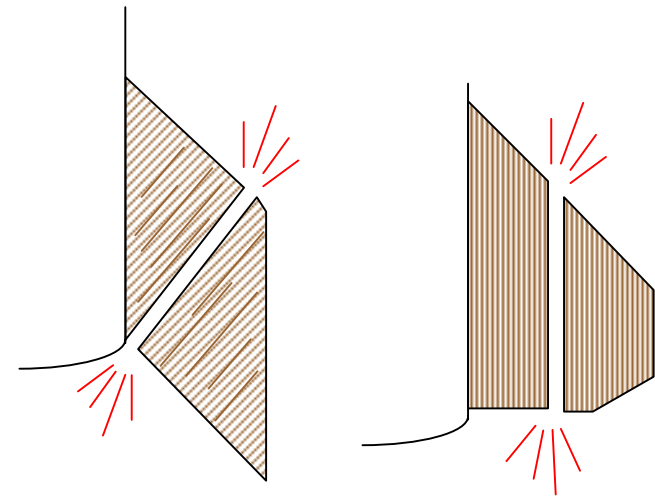


Fins

Make sure the grain of the wood is parallel to the leading edge (front) of the fin



This...

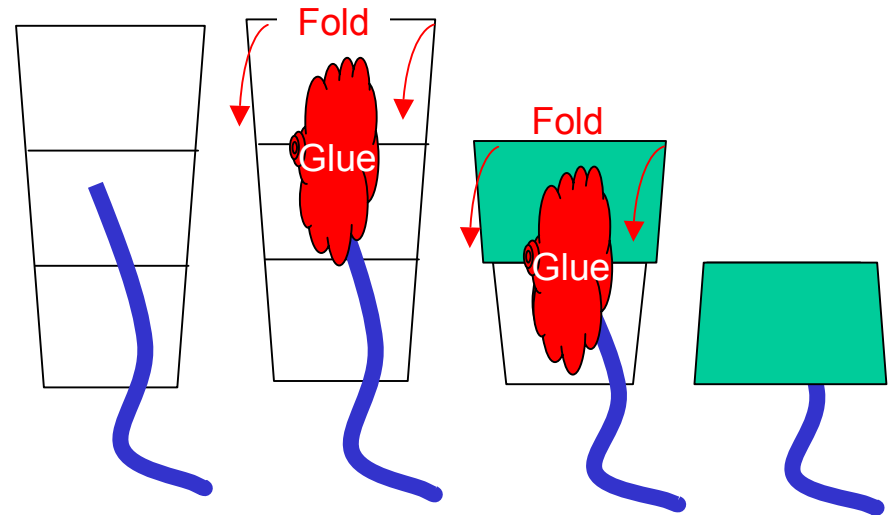


Not This...

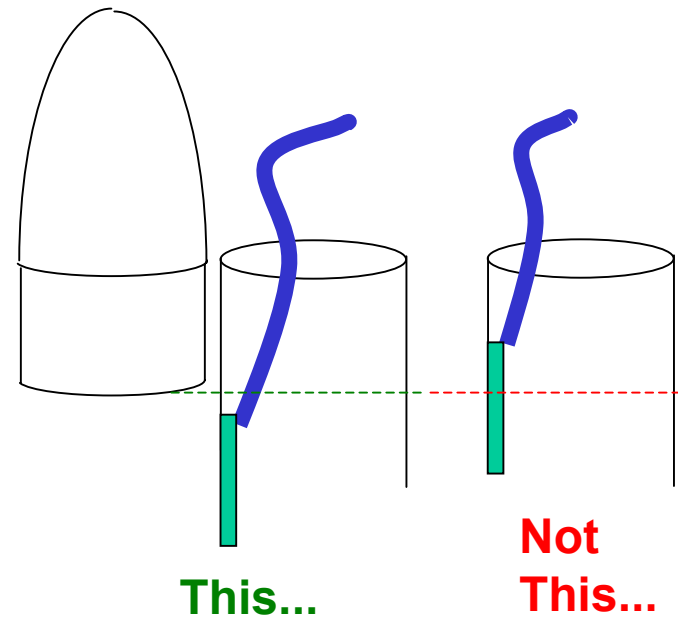


Shock Cord Attachment

The "tadpole" design works well.



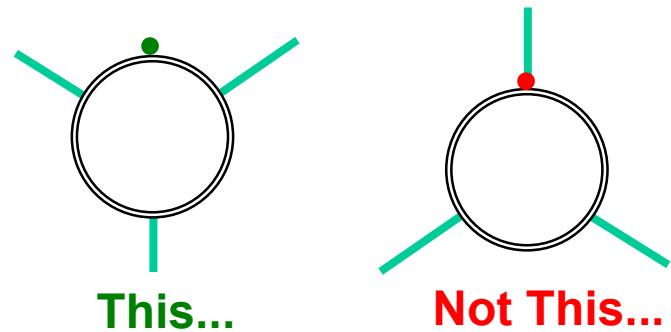
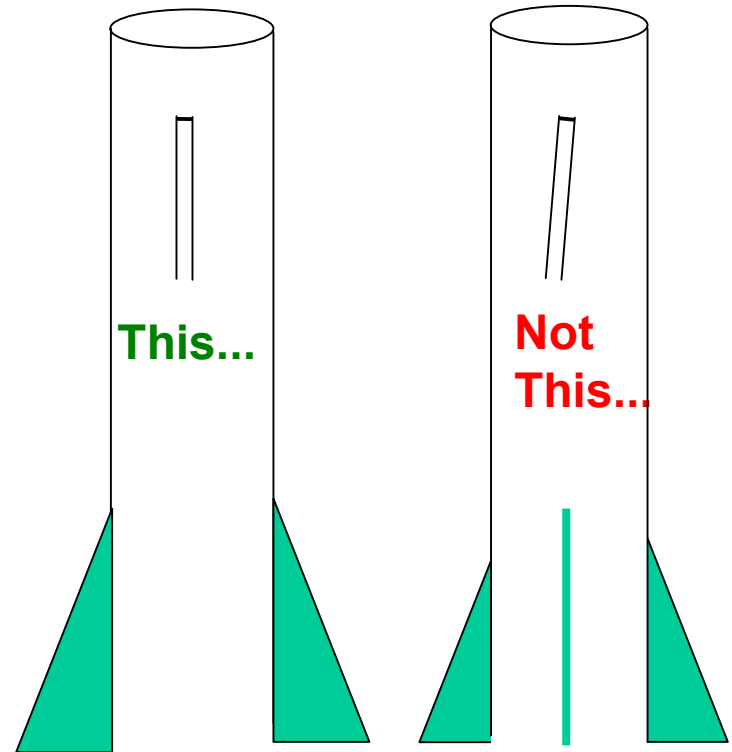
Make sure you put it low enough so that the nose cone still fits!



Launch Lug Attachment

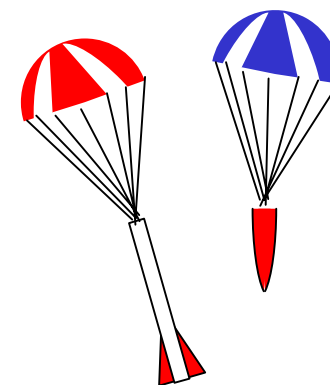
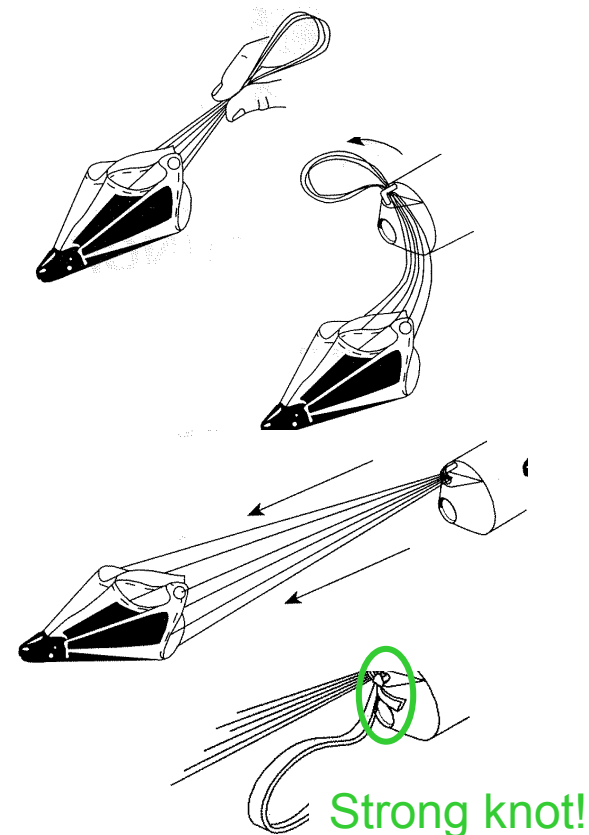
The launch lug needs to be straight.

Make sure you put it *between* the fins!



Recovery Systems

- Unwrap the parachute.
 - Gather all the loops in one hand, and make sure they are even.
 - Push them through the eyelet of the nose cone until the nose cone is next to the parachute.
 - Now pass the parachute through the loop, and pull tight.
- Tie the free end of the shock cord to the eyelet on the nose cone with a strong knot.
- It is OK to use a parachute for the nose section and another parachute for the body section!



Finishing

Smooth surfaces reduce drag, so the rocket flies higher.

- Use sandpaper to smooth fins
 - Start with medium grit,
 - Then use finer grits
- Fill the grain of the wood and the spirals in the body tube with lightweight wood filler
- Use several light coats of paint instead of one heavy coat of paint
 - Use very fine sandpaper in between coats

