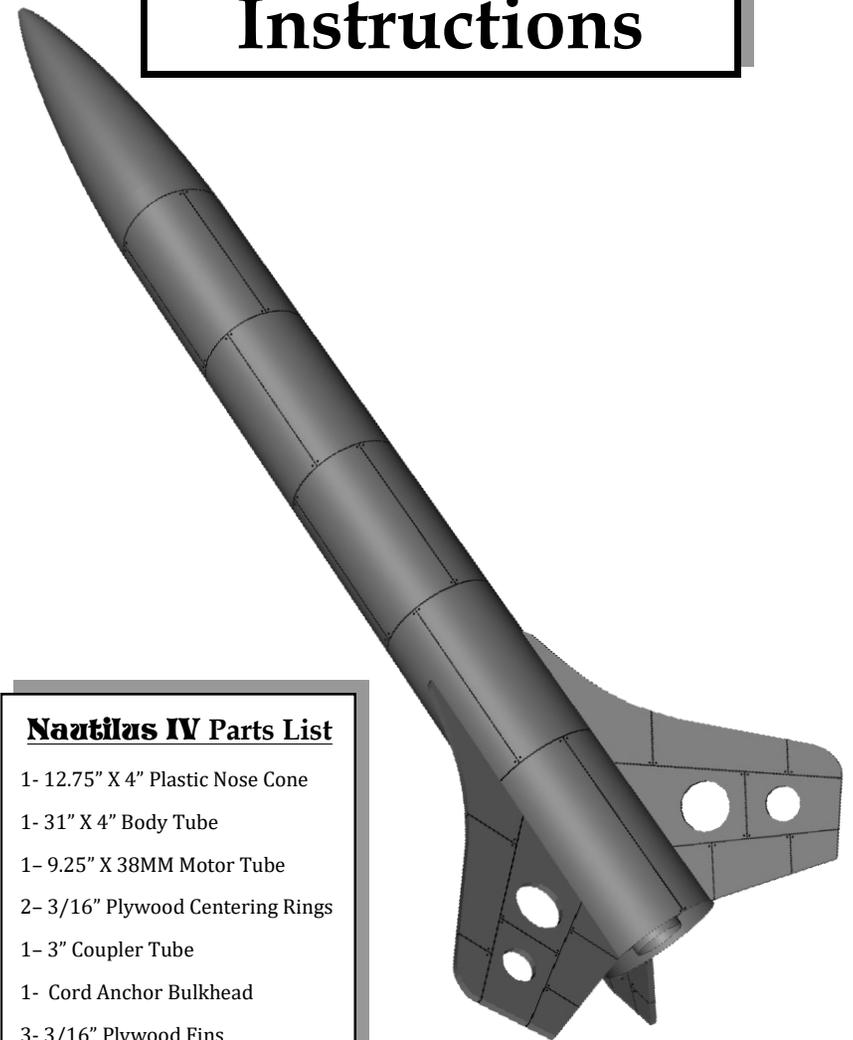


## MORE NOTES

## 3D ROCKETRY

# Nautilus IV Instructions



### Nautilus IV Parts List

- 1- 12.75" X 4" Plastic Nose Cone
- 1- 31" X 4" Body Tube
- 1- 9.25" X 38MM Motor Tube
- 2- 3/16" Plywood Centering Rings
- 1- 3" Coupler Tube
- 1- Cord Anchor Bulkhead
- 3- 3/16" Plywood Fins
- 2- 1010 Rail Buttons
- 2- 1/4" Eyebolt Sets

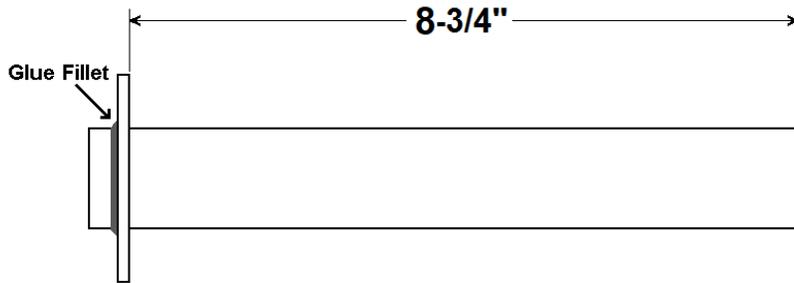
#### 3D Rocketry, Statement of Limitation of Liability

Limitation of Liability: Model rockets are not toys. Model rockets are functional rockets constructed of lightweight materials and launched using pre-manufactured, NAR safety certified model rocket motors in accordance with the NAR Model Rocket Safety Code. Model rockets, if misused, can cause injury, property damage and even death. 3D Rocketry certifies that it has exercised reasonable care in the design and manufacture of its products. Once sold, we cannot assume any liability for product storage, transportation or usage. 3D Rocketry shall not be held responsible for any property damage or personal injury whatsoever arising from the handling, storage, use or misuse of our product. The buyer assumes all risks and liabilities there from and accepts and uses 3D Rocketry products on these conditions.

# 3D ROCKETRY

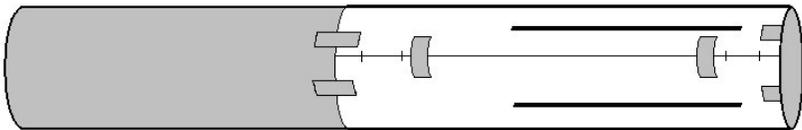
## Step 1

(**Tip: Dry fit fins, centering rings and motor tube before assembly to insure all parts line up correctly. Some slight sanding or trimming may be needed.**) Glue centering ring to motor tube 8-3/4 in. from bottom of tube as shown. Apply a few layers of fillet glue at the top of forward ring. Let each fillet layer of glue dry before applying next layer. Allow this assembly to dry thoroughly before gluing in main tube! **Do not glue rear centering in place at this time if you are applying internal fin fillets.**



## Step 2

Cut out fin slot template guide. Tape slot guide around body tube lining it up with the small guide lines and end of body tube. Next tape down fin guide at the end of body tube and at top of fin guide. **Make sure template can not move while cutting or marking tube.** The slots can be cut out a couple of different ways. 1) Cut out paper slots and trace slots on to body tube with pencil or poke holes at each corner point, connect pin dots with straight edge and carefully cut out slots with a hobby knife freehand or with a straight edge. 2) Cut slots out using a dremel type tool. After cutting slots sand or trim slots so fins slide through easily but snugly.



# 3D ROCKETRY

## NOTES



# 3D ROCKETRY

## Recommended 38MM Motors for first flight :

### Aerotech Reloads

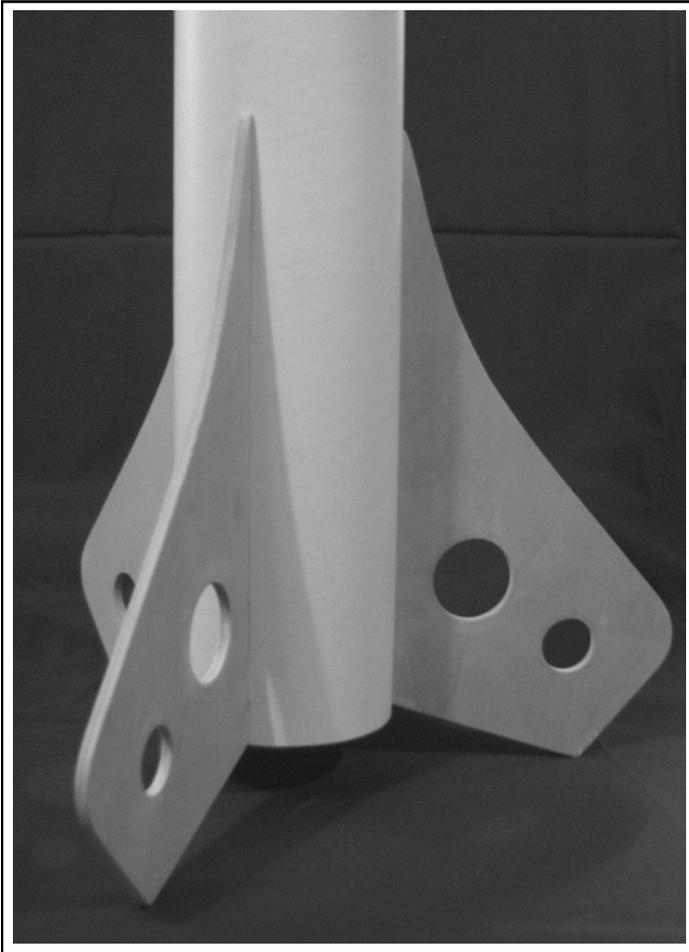
G69-6

H73-6

### CTI Reloads

G46-6

G60-7

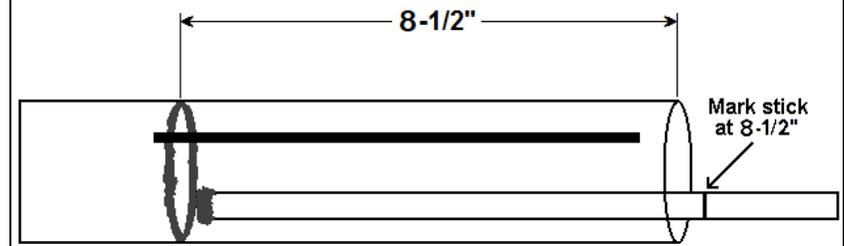


# 3D ROCKETRY

## Step 3

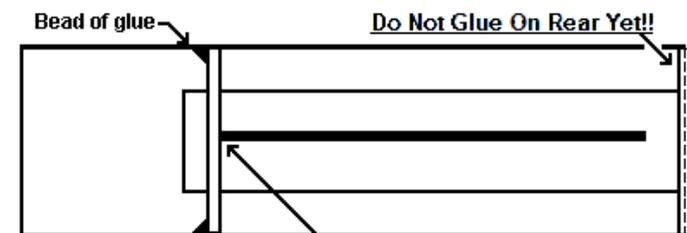
(Tip: Sanding the slot edge smooth on the inside of the tube keeps the centering rings from binding when inserting motor tube assembly.)

Find a scrap piece of stick that's about 10 in. to 12 in. long and mark the scrap piece at 8-1/2 in. Apply a generous ring of glue inside the main body tube at the 8-1/2 in. mark as shown.



## Step 4

Insert the motor tube assembly into the main tube till the bottom of the top centering ring is at the top of the fin slot. Place lower centering ring partially on motor tube to align motor tube. For internal fillets do not glue ring to motor tube yet. Stand up the completed assembly with the motor tube end down until the glue dries. Look into the top of the body tube with flash light and check to insure you have a good bead of glue around the edge of the centering ring. (**TIP: Placing pieces of masking tape on lower ring helps to pull it out after assembly is dry. See step 5**)



Slot must line up with the Bottom of centering ring.

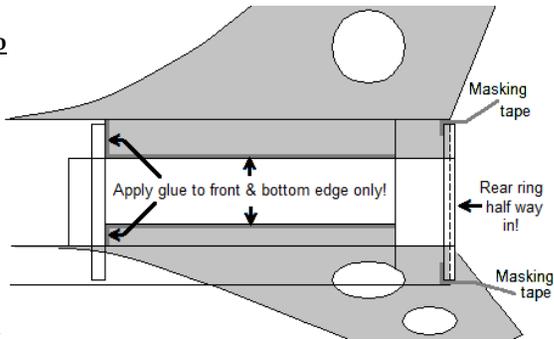
# 3D ROCKETRY

## Step 5

Apply masking tape to the rear centering ring if you wish to apply optional internal fin fillets after gluing on fins.

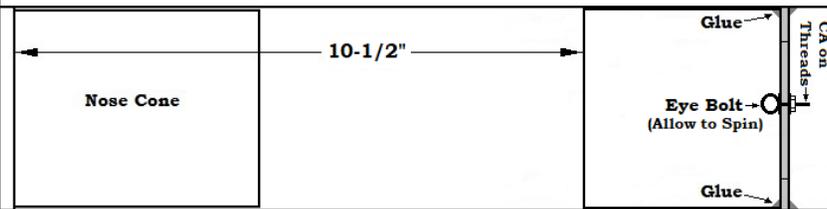
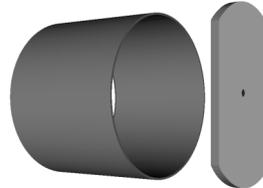
**Insert rear ring in half to three quarters of way only!**

Apply glue to the front and bottom edges of the fin only as shown and carefully slide in slot until fin touches motor tube then align fin. Allow each fin to completely dry before gluing the next one.



## Step 6

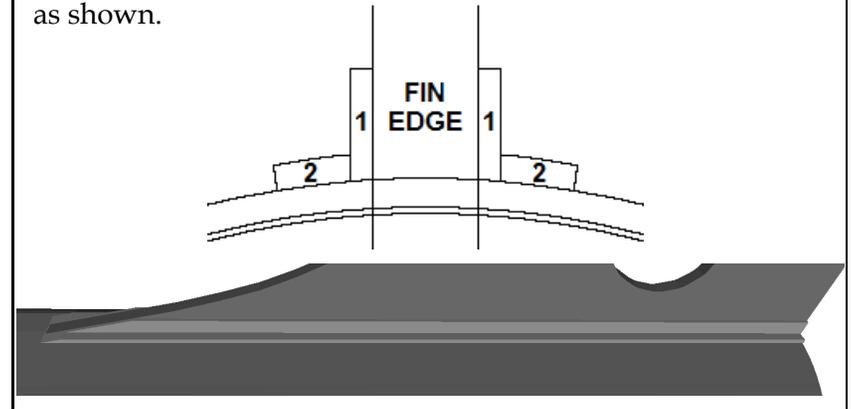
Glue shock cord anchor bulkhead to rear of the coupler tube. Apply a fillet of glue on the internal assembly as shown. After assembly is dry you want to attach your eyebolt and shock cord before final body tube insertion. Eyebolt should spin freely after applying a few drops of CA to threads. Apply a layer of glue about 11 in. inside forward end of the main body tube and insert forward end of coupler to 10-1/2 in.



# 3D ROCKETRY

## Step 7

**Optional trim detail.** These card stock trim strips are not included! Attach optional 1/4" card stock fin strip no. 1 to fin as shown. Attach optional 3/16" paper fin strip no. 2 to body tube as shown.



## Step 8

Glue in the rear ring to the rear edge of the fins and motor tube. Attach rail buttons, retainer, parachute and most importantly **ENJOY!!**

