

STEP 7

Install rail guides into booster with provided screws. Try to aim for the aft and forward rings centered (at the high point) between the fins. Drill a hole smaller than the screw so the screw threads into it. Drop a small amount of epoxy in drilled hole, thread the rail guide and screw in the hole, rotate rocket 180 degrees & let cure. Repeat for the forward rail guide.



STEP 8

Lightly sand plastic nose cone with fine sandpaper to remove molding seam line. Also sand airframe and fins to produce a smooth finish.

FINISH

Spray rocket with primer, sand and repeat until smooth finish is obtained. Spray rocket with paint of choice, let dry. Apply protective clear coat.



Attention!

This rocket is recommended for low to mid power rocket motors F — I impulse. Depending on your flying field and finished weight, this is a very versatile kit. Always check stability to ensure stable flight; the Center of Gravity (CG) must be forward of the Center of Pressure (CP) in flight ready condition. The Rocksim file can be found on the Semper Fi product page for download.

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FLYING MODEL ROCKET KIT

Semper Fi



5,000'
350'

F-I
Capable Impulse

DIAMETER 3.1"

HEIGHT 50"

WEIGHT 31oz

Proud Supporter of



Featuring:

- 3" Pre-Slotted Airframe Payload Section
- Polypropylene Nose Cone
- 36" Rip-Stop Nylon Parachute
- 15' Nylon Shock Cord
- 38mm Motor Mount
- Laser Cut Fins/Rings
- Rail Guides
- Hardware
- Starter Recovery Blanket
- Vinyl Decal

Scan for complete details!



435A Factory Street, Plymouth, WI 53073
920.892.0557
LOCprecision.com

HAND MADE IN THE USA



LOC

Semper Fi

- 24" Slotted Booster
- Payload Section, Coupler, Bulkhead
- Polypropylene Nose Cone
- 36" Parachute
- Nylon Shock Cord
- 38mm Motor Tube
- 1/8" Fin Set
- 3 Centering Rings
- Rail Guides
- Hardware
- Starter Recovery Blanket
- Vinyl Decal

Due to the high thrust motors that can be flown in this rocket, epoxy is recommended!
Before beginning construction, read over instructions to become familiar with the proper construction steps. **TEST FIT ALL PARTS!** Light sanding may be necessary to obtain proper fit.

STEP 1

Rough sand the motor tube to ensure proper adhesion OR remove the outer glassine wrap. Slide the FWD (has lasered eye bolt hole) ring onto the motor tube so the tube is 1/8" exposed from the ring. From the other end take ring and slide up the motor tube. Slide the AFT ring on leaving 1/8" of the motor tube exposed. Insert the fins into the AFT and MID ring slots to obtain proper alignment. Remove fins and tack rings in place with CA or 5 minute epoxy. When cured, epoxy fillet each side of each ring where the wood meets the motor tube. Be aware of where the fin tabs will meet the motor tube. Some mark lines to keep that area free of epoxy for proper fitting. Allow to cure.

STEP 2

Install one eye bolt into the FWD ring. Epoxy fillet where the screw meets the ring on both sides. Allow to cure. Attach shock cord to eye bolt on FWD centering ring. Pass loop through eye bolt, then pass shock cord through it's own loop as shown. Don't get any epoxy on the shock cord! Ball up shock cord and push into FWD end of motor tube. This will keep it clear of epoxy in the next steps.

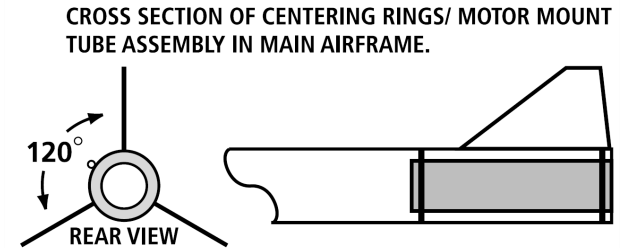


STEP 3

Slather epoxy up the AFT of the airframe between each fin slot, a few inches, OR FWD of the slots. Insert motor mount assembly up the airframe. Slide all the way up the airframe until the MMT is slightly recessed in the AFT of the airframe. Once cured epoxy fillet the AFT ring where the ring meets the airframe. Allow to cure. Optional—when cured, position the airframe standing upright and drizzle epoxy down onto FWD ring if you feel you need more. Allow to cure.

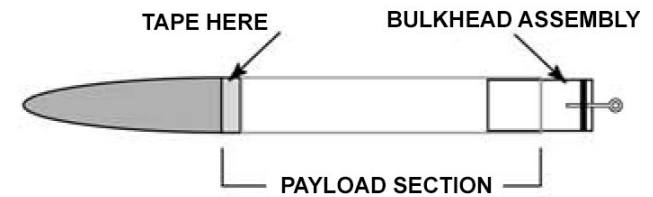
STEP 4

Reposition airframe laying down. Apply a generous bead of epoxy to the root edge of one fin and insert in the fin slot. Allow to cure before moving onto the next fin. When all fins are epoxied in place, apply an external fillet to each fin to airframe joint. Allow to cure.



STEP 5

Install eye bolt into the bulkhead. Epoxy fillet both sides of the screw eye to the bulkhead, allow to cure. Install the bulkhead 1/8" recessed into the coupler. Epoxy fillet each side where the bulkhead meets the coupler. Allow to cure.



OPTIONAL—you may retain the coupler with screws or plastic rivets. This will leave the possibility of adding an electronics bay in the future for dual deployment flights.

Slather epoxy 1" into one end of payload. Insert the coupler 1/2 way with screw eye toward the AFT. Allow to cure.

STEP 6

Remove shock cord from motor tube so it extends out the FW of the booster. Insert into fire blanket slit, slide blanket down on top of motor tube.

Knot shock cord through the loop in the bulkhead eye bolt approximately 3' from the end. Attach quick link to the sewn shock cord loop and parachute to the quick link. Make a knot in the paracord. Refer to the pictures below. A good practice is also to add a swivel to minimize spin on decent.

