



PARTS LIST

- * Polyethylene Nose Cone
- * Slotted Booster
- * Payload Section/Tube Coupler
- * 29mm Motor Mount
- * 2x29mm Centering Rings
- * AFT/MID/FWD 1/8" Fin Sets
- * Tubular Nylon Shock Cord
- * Ripstop Nylon Parachute
- * Starter Fire Blanket
- * Launch Lug
- * Vinyl Decal Set

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 ring (with hole for screw eye) onto the motor tube so the tube is 1/8" exposed from the ring. From the AFT ring and slide onto motor tube leaving 1/8" of the motor tube exposed (if using an aluminum motor retainer, you would need to adjust the length of the motor tube exposed). Ensure rings are perpendicular to the motor tubes and tack into place. Once cured, make an epoxy fillet to the joint where the motor tubes meet the rings. Allow to cure.

STEP 2

Take the length of 2' Kevlar cord and at its center make a 1" long loop knot and pull it tight. Make a knot a 1/4" away from the end of EACH of the two loose ends. Tie the two knotted loose ends of the Shock Cord Mount, into the screw eye. Take tubular nylon and tie your favorite knot to the 1" loop in the Kevlar. Rubber band or bunch up shock cord and feed to the AFT down the motor tube. This will keep it clear for the next steps.

STEP 3

Slather epoxy up the AFT of the booster (the end with fin slots) FWD of the fin slots. Insert motor mount assembly until AFT ring is 1/8" recessed. Stand airframe AFT down to cure. You may always add more epoxy to the FWD ring by drizzling epoxy onto the ring from the FWD end of the booster. **DO NOT** get any epoxy in the motor tube!

STEP 4

Flip airframe over so AFT is upright. Apply an epoxy fillet to the intersection where the AFT ring meets the airframe. **DO NOT** get any epoxy in the motor tube! Allow to cure.

STEP 5

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

STEP 6

Xacto knife a perimeter around the FWD slots in the payload for better adhesion. Slather epoxy around the FWD of the payload about .5" wide. Insert nose cone. Wipe off excess epoxy in FWD fin slots to ensure FWD fins fit in the slot. Allow to cure. Position payload laying down, insert/epoxy one fin at a time. Allow to cure before moving to the next.

STEP 7

Install screw eye into bulkhead. Epoxy fillet each side where the screw meets the wood. Allow to cure. Insert bulkhead into coupler tube recessed 1/8" into one end. Epoxy fillet each side, allow to cure. Slather epoxy up the AFT end of the payload. Insert half the length of the coupler tube in payload.

STEP 8

Take out tubular nylon and feed through payload screw eye 1' from the end. Tie a knot so the payload can't slide down the shock cord. At the end of the tubular nylon tie a loop. Attach parachute shroud lines to loop by looping over shock cord and passing back through shroud lines making a knot. Some use a quick link or swivel, this is your choice, knot ours!

STEP 9

Cut the launch lug in half at an angle, making them aerodynamic. Find the high point of the airframe between fins. Mark a straight perpendicular line up 10" from the AFT of the airframe. Epoxy one lug 2" up from the AFT of the airframe. Epoxy another at least 8" FWD. Allow to cure.



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. Apply vinyl decals to your liking, repeat with clear coat.



Sim!

This rocket is recommended for high power rocket motors F through I impulse. Depending on your flying field and finished weight, this is a very versatile kit. The Rocksim file is available on the 2.26" NIKE ZEUS product page on our website. 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.

Since Yank Aeronautics LLC dba LOC PRECISION cannot control the use of its products once sold, the buyer assumes all risks and liabilities there from, and accepts and uses LOC Precision products on these conditions.

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MODEL ROCKET SAFETY CODE

Materials. I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.

Motors. I will use only certified, commercially-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.

Ignition System. I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the launch switch, and will use a launch switch that returns to the "off" position when released.

Misfires. If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.

Launch Safety. I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet away when I launch rockets with D motors or smaller, and 30 feet when I launch larger rockets. If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance. When conducting a simultaneous launch of more than ten rockets I will observe a safe distance of 1.5 times the maximum expected altitude of any launched rocket.

Launcher. I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launchers so that the end of the launch rod is above eye level or will cap the end of the rod when it is not in use.

Size. My model rocket will not weigh more than 1,500 grams (53 ounces) at liftoff and will not contain more than 125 grams (4.4 ounces) of propellant or 320 N-sec (71.9 pound-seconds) of total impulse.

Flight Safety. I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.

Launch Site. I will launch my rocket outdoors, in an open area at least as large as shown in [the accompanying table](#), and in safe weather conditions with wind speeds no greater than 20 miles per hour. I will ensure that there is no dry grass close to the launch pad, and that the launch site does not present risk of grass fires.

Recovery System. I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.

| <u>Installed Total Im-</u> | <u>Equivalent Motor Type</u> | <u>Minimum Site Dimensions (ft.)</u> |
|----------------------------|------------------------------|--------------------------------------|
| 0.00-1.25 | 1/4A, 1/2A | 50 |
| 1.26-2.50 | A | 100 |
| 2.51-5.00 | B | 200 |
| 5.01-10.00 | C | 400 |
| 10.01-20.00 | D | 500 |
| 20.01-40.00 | E | 1,000 |
| 40.01-80.00 | F | 1,000 |
| 80.01-160.00 | G | 1,000 |
| 160.01-320.00 | Two Gs | 1,500 |

LAUNCH SITE DIMENSIONS