Inverted Pursuits Lab

The Lil' Nick

www.jboyson.com

Parts:

3D Printed

- Nose Cone (IP100301)
- Fin Can Body (IP100302)

Standard Parts

- 200lb Spectra Cord 18 inches
- 4 inch Estes BT-20 Tube (003085)
- Motor Hook
- Eye-Bolt

Additionally Needed

- Estes Porta-Pad II (002215)
- Estes Launch Controller (002220)
- Super Glue
- Elmers Glue

Anticipated Altitudes

- Estes A8-3 - 150 ft
- Estes B6-4 - 400 ft

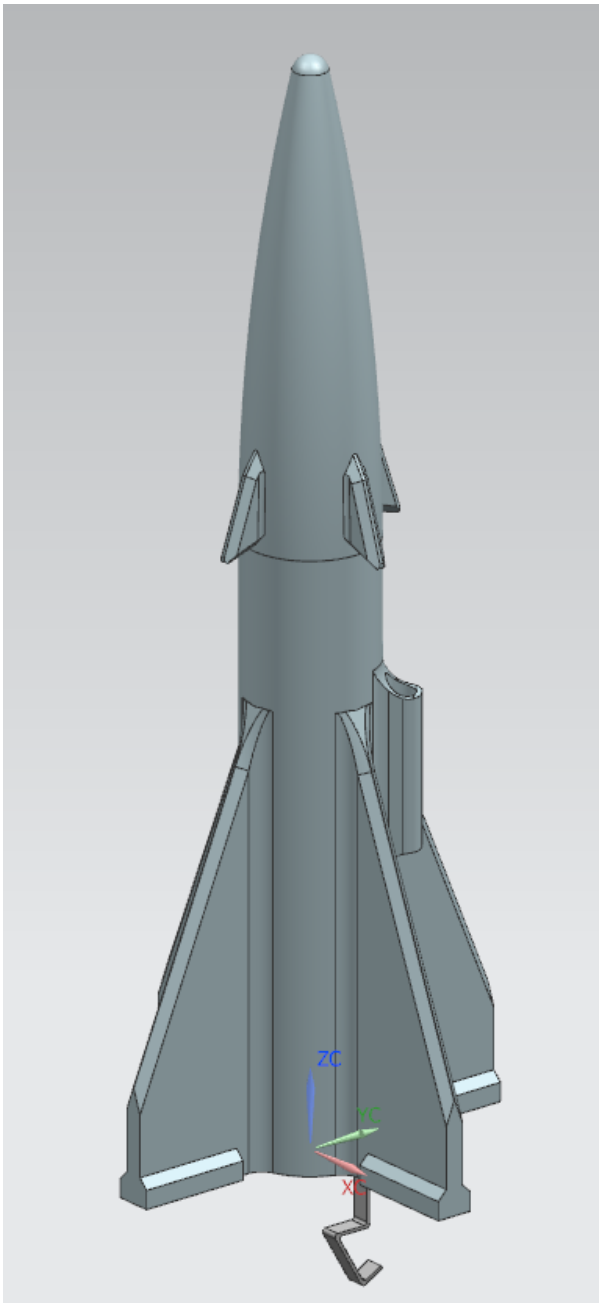

FIGURE 1: The Lil' Nick Rocket

Assembly Instructions

1. An assembly video is available on YouTube at Inverted Pursuits Laboratory

2. Be sure to test fit and sand all components prior to proceeding.

3. Cut a piece of paper 0.5in by 2in for shock cord mounting.

4. Cut a slot in the BT-20 tube 2.25 inches from 1 end to allow the motor hook to slot into the tube.

5. Slip the motor mount onto the BT-20 tube and lay along the BT-20 tube.

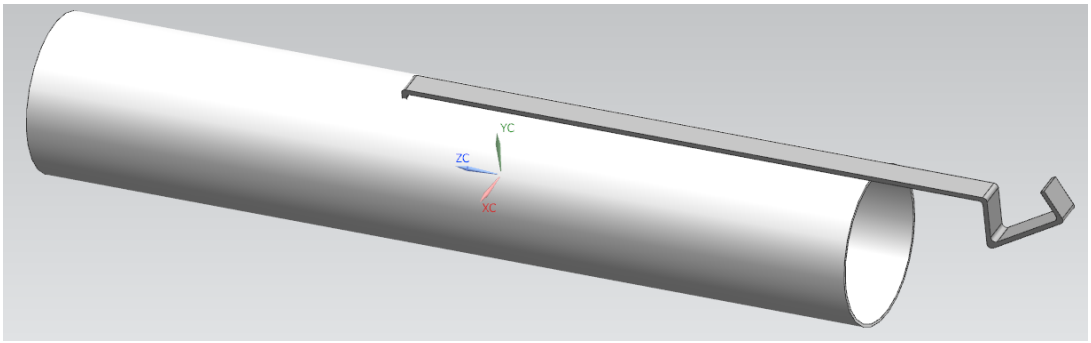

Figure 2: *BT-20 and Motor Hook*

6. Slide the BT-20 and Motor Hook assembly into the bottom of the Fin Can Body to test fit. Be sure to align the Motor Hook with the corresponding slot in the Fin Can Body.Glue in place with super glue once happy with test fit.

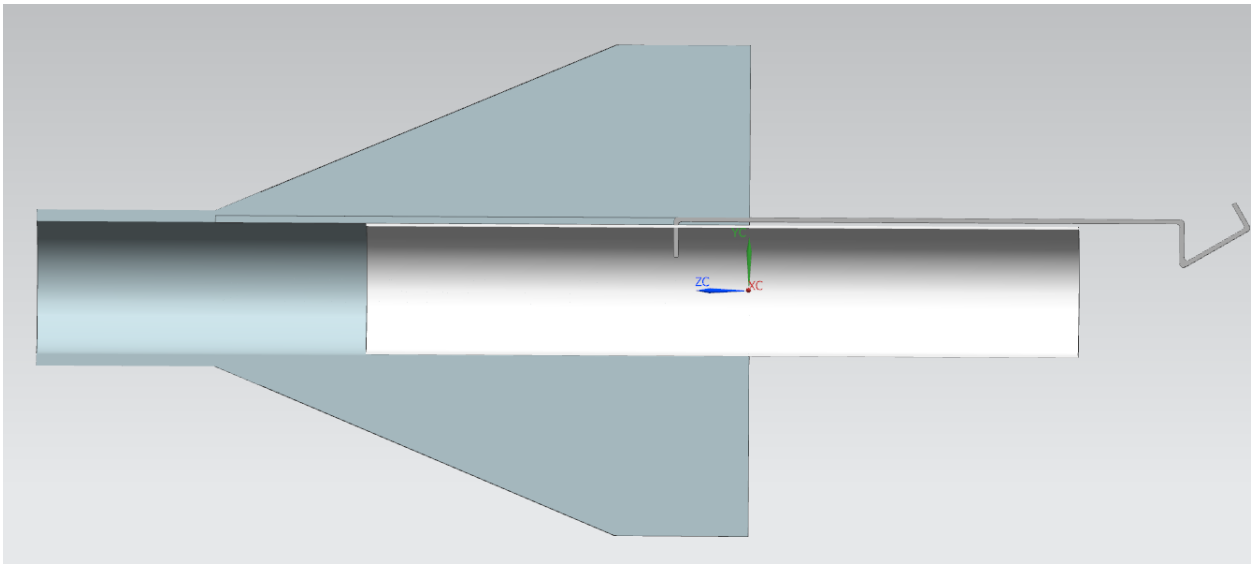

Figure 3: BT-20 slides into FCB

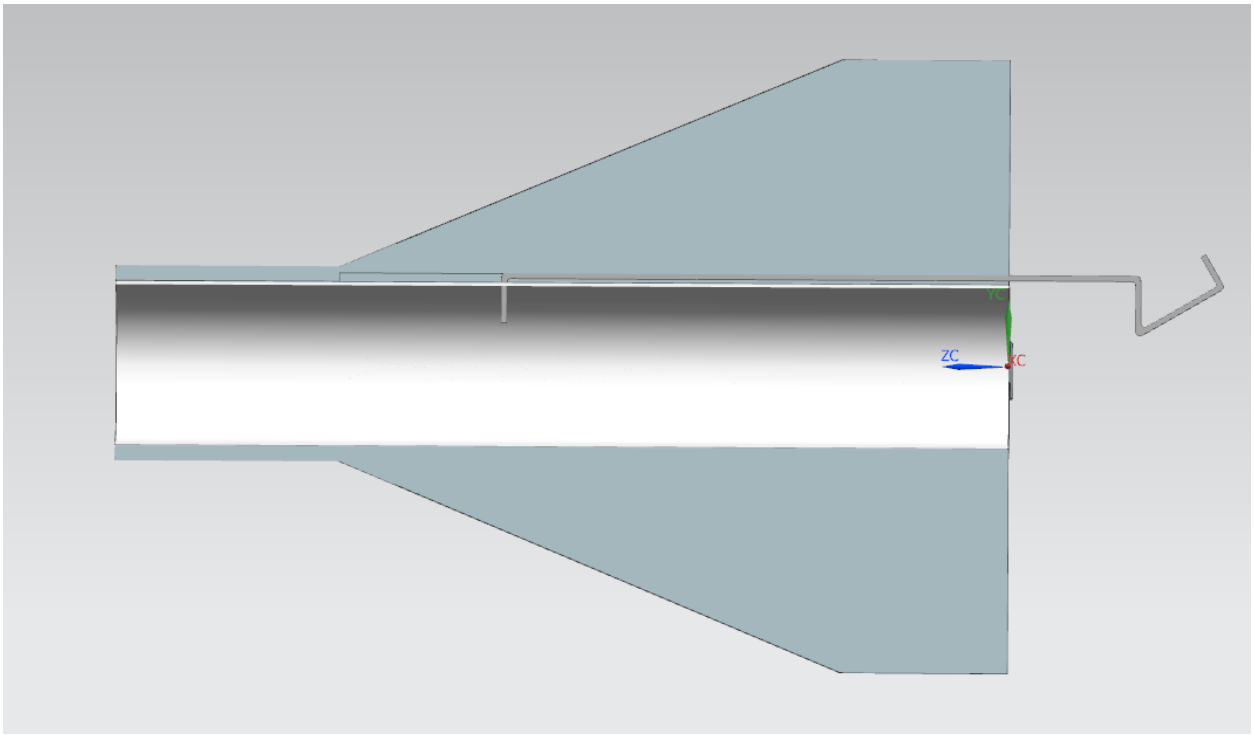

Figure 4: BT-20 Final Position

7. The Shock Cord (Green) glues folded into the 0.5inx2in piece of paper (Purple). Place Elmers Glue in the orange areas before tri-folding the paper and cord together.

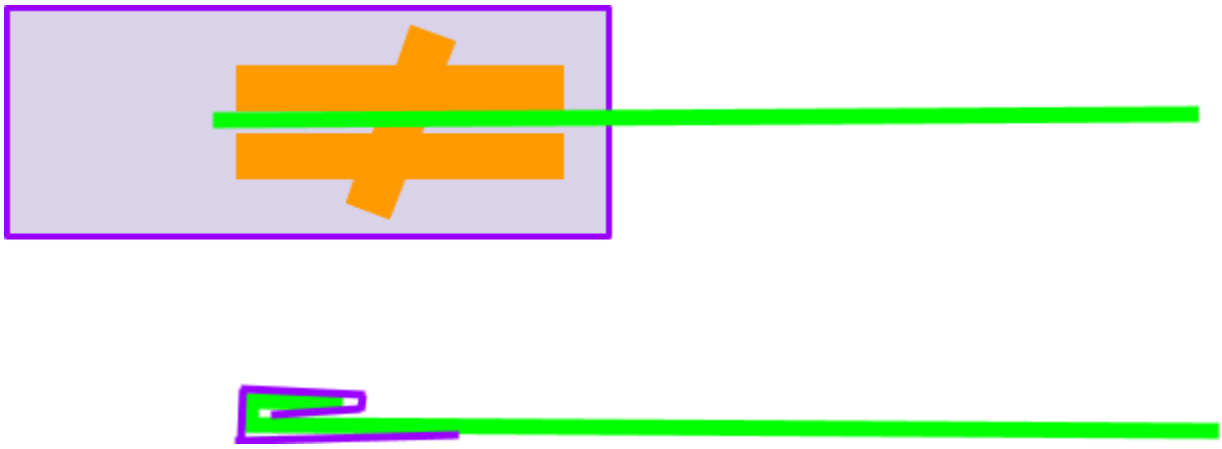

Figure 5: Shock Cord Gluing PT1

8. Use Elmers Glue to adhere the Paper and Shock Cord (Green/Purple) mount into the top of the BT-20 tube (Gray). Glue the Paper and cord assembly as close to the Motor Hook without passing it as you can.

Figure 6: Shock Cord Gluing Pt2

9. Screw the Eye-Bolt (RED) into hole inside the Nose Cone.

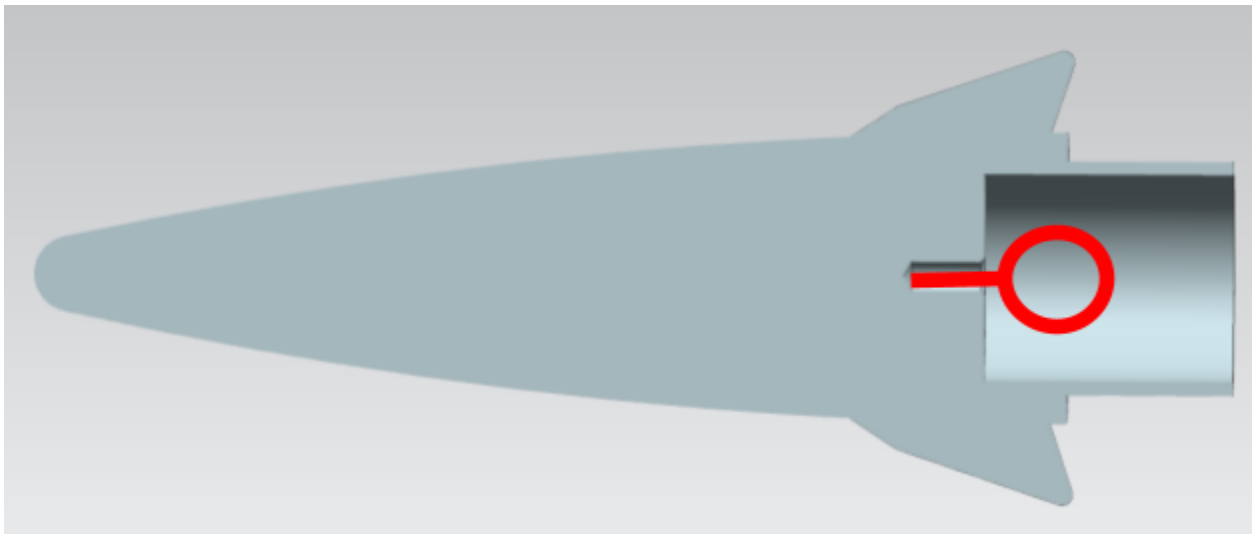

Figure 7: Nose Cone/Eye-Bolt

10. Tie the other end of the shock cord to the Eye-Bolt in the Nose Cone.

11. Flight Characteristics can be verified through the provided OpenRocket file.

12. Once the motor is placed, go out to the launch pad and enjoy.

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