



- 🔥 **Model:** 07664
- 🔥 **Skill Level 4:** Slightly Challenging
- 🔥 **Length:** 40.750" (103.51 cm)
- 🔥 **Weight:** 45.900 oz (1301.24 g)
- 🔥 **Diameter (Max):** 3.900" (9.91 cm)
- 🔥 **Fin Span:** 18.250" (46.36 cm)
- 🔥 **Fin Count:** 4
- 🔥 **Motor Size:** 54mm
- 🔥 **Recovery System:** 36" Nylon Parachute
- 🔥 **Launch Pad Type:** High Power
- 🔥 **CP Location:** 36.14" (91.8 cm) from the tip of the nose cone
- 🔥 **Manufactured by:** LOC Precision Rocketry

Additional Info:

- 🔥 Uses F-J size rocket motors
- 🔥 Vinyl Decals
- 🔥 Pre-slotted tube for through-the-wall fins
- 🔥 Polypropylene Nose Cone
- 🔥 15-foot long Nylon shock cord
- 🔥 54/38/29mm LOC-N-Mount engine adapter system
- 🔥 Made in the USA

\$132.24

No Expected Restock Date, Checkback soon for updates!

[Click here to learn more about out of stock products...](#)

Sold Out ↗


**Back-in-Stock
Notification Below**

Average Rating: **4.42** 🌟🌟🌟🌟🌟
[Reviews Page](#) | [Write Review](#)

A high-power upscale of an old Estes kit, the Goblin can fly on F through J size rocket motors. Features a unique motor adapter assembly so you can use 29mm, 38mm, or 54mm diameter rocket motors. Great for sport flying, or an L1 high-power certification.

[ABOUT](#) [REC. MOTORS](#) [ROCKSIM FILE](#) [TOOLS](#) [FAQS](#) [REVIEWS](#) [RELATED PRODUCTS](#)

Related Documentation

 [Download the LOC Goblin Assembly Instructions](#)

54/38/29mm LOC-N-Mount Motor System Included

The LOC Goblin is a massive 4" diameter rocket kit with a wingspan like a prehistoric... er... well... like a goblin.

With Estes' permission to upscale a classic, the LOC Goblin has a full set of high-power kit features. The most notable is a Loc-n-Mount motor adapter system allowing 54, 38, and 29mm motors. At 45.9 ounces it's light enough to be a Class 1 flyer, and with the main 54mm, it can easily attain high power flights. Vinyl decals are included as well as all necessary hardware and rail buttons. Recovery is with a 36" Rip-stop nylon parachute and 15' flat braided nylon shock cord with loops sewn in the ends. The booster section can be completely assembled and then slid into the airframe for maximum strength. Or use the traditional fin tabs and slots.



The launch of the Goblin Rocket Kit

TALK TO A REAL PERSON!



📞 **Phone:** 719-535-9335

📠 **Fax:** 719-534-9050

📍 **Store Address:** 4960 Northpark Drive Colorado Springs, CO 80918

📍 **Visit Us: Directions**

✉ **Contact Form**

💬 **Online Tech Support**
Check the bottom of your browser window to see if we're online to chat.

🕒 **Hours of Operation:**
9:00am-4:45pm, M-F
Mountain Time Zone

QUICKSTART GUIDES:

I'm new to Model Rocketry!

How rockets work and what should you fly.



I'm on or mentoring a TARC Team

Team America Rocketry Challenge deals and supplies.



I need info on Rocket Motors.

Differences in motor types and brands.



I want to fly bigger rockets!

Setting up to fly rockets on E, F or G motors.



I'm looking to get High Power Certified.

Find out the process and our recommended kits.



I want to get into Dual Deployment.

See what it is, how it works and what you need.



I want more info on RockSim Software!

Trial version and tutorials for our simulation software.



I'm a student or educator!

Teaching resources.





LOC Goblin sitting on the launch pad



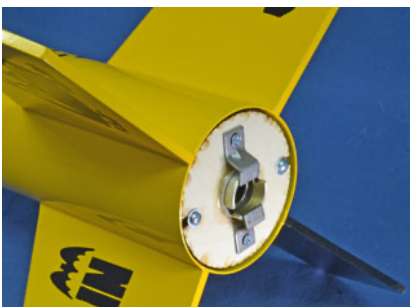
Comes with two plug-in Motor Mounts



Comes standard with a 54mm motor mount and "Kaplow Clips" type retention system.



Also comes with TWO motor adapters. One for 29mm motors, and one for 38mm motors.



When assembled, the motor adapter and the rocket motor are securely restrained in the rocket.

TESTIMONIALS

Apogee is the top!

I can not say enough good things. My preorder questions answered magnificently. My order came quickly and correctly. Post order follow-up superb. The...

[Read More](#)

Order Timeliness

One of the best experiences I've had with ordering from Apogee is it's consistency in timeliness in fulfilling its orders. Whether it's bulk tubing...

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Apogee Makes me Wish I Lived in Colorado!

I learned a valuable lesson in purchasing rocket supplies from non-rocket, generic hobby stores. Once, I ordered supplies from a hobby store that...

[Read More](#)

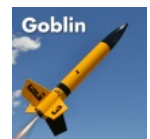
[View All Testimonials](#)

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REVIEWS



Not a bad product (not really hot on the Christmas...



Solid, well thought out. I built the motor mount outside...



excellent Kit supper tough if you Use alternative fin can...



WE ALSO SELL





The LOC Precision Goblin kit is a bigger rocket that uses heavy wall tubes. While the tubes don't make the rocket any harder to assemble, it does require extra safety precautions when flown. Patience and acquired flying skills to know when NOT to fly are just as important as quality construction techniques.

Frequently Asked Questions Specific to This Kit

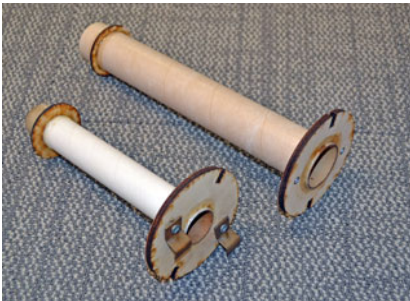
Q. What does step 6 in the instructions mean?

A. In this step, you have to drill holes in the tube for the rail buttons. When you drill the hole, try to put it so that the drill will also go into the centering rings for the engine mount. That way, when you put in the screws (and epoxy them into the holes), they grab into the wood of the centering ring making them stronger.



Q. What does step 7 in the instructions mean?

A. LOC isn't good on instructions, which is why this is a Skill Level 4 rocket. You do have to do a little interpreting to figure out what they are trying to say. In this step, it is where you build the two engine mount adapters. These allow you to use smaller rocket engines in the rocket instead of using 54mm motors. Study the images here on what the two adapters should look like when you are done. Click on them for larger images with greater detail. If it isn't sufficient, you'll probably need to contact LOC Precision (the manufacturer) for more help.

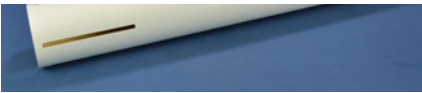


Features of the Goblin

The Loc Goblin kit contains these components.



High-Quality Body Tubes - The main body tube in this kit is thick-walled for extra strength. It will easily handle the high thrust of big motors. The surface is slick and smooth, which makes marking lines easy. Finishing is also a



breeze since the spirals are tight and require little filling. The fin slots are pre-cut and are a perfect fit for the plywood fins.

both the fins and the motor mount extra strong.



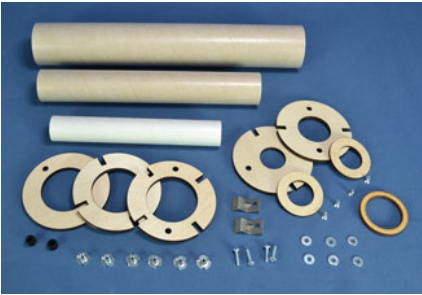
Super Strong Plastic Nose Cone - This plastic nose cone (replacement here) can really stand up to any amount of abuse you might give it. It has a 12.75 inch exposed length. It also has a molded shock cord attachment.



1/4-inch Thick Plywood fins - These beautiful fins are made from thick, high-density, premium plywood. It's incredibly hard to break these, especially if you use epoxy to glue them through the body to the motor tube. Plus, they are pre-cut and are perfectly uniform.



Nylon® cloth parachutes - Included in this kit is a 36-inch diameter nylon parachute that is built for high power rockets. For a beefy kit like this, the chute will bring it down quickly so it doesn't drift far. When this monster unfurls with a thump, the kids go nuts!



54mm Engine Mount - That gaping hole in the business end? It's for monster engines, like G through I size rocket motors, right on up through slower burning (level 2)) motors. Fiberglass it and you can go even faster and higher.

Plywood Centering Rings - The thick plywood used on the centering rings is extra strong. The rear centering ring epoxies to the fin tabs, which results in an *incredibly* strong fin can. It's too bad these components are relegated to the interior of the rocket because they are works of art.



The Goblin kit includes a nicely done set of vinyl decals. These are transferred to the rocket by a masking tape layer. Simply cut them apart and peel off the backing. Then lay on the rocket and press down on the vinyl to get it to stick to the rocket. Finally, peel back the low-tack masking tape. The decal is shiny and looks like it was painted on. This is as professional as it gets!



It is nice to see four-color instruction sheet included in the rocket kit. That is a nice touch. You can also download the Goblin assembly instructions from our website [here](#).

Recommended 54mm Engines for the Goblin

Use the chart below to help determine which motor to use for this kit.

Estimated Altitude Predictions generated using RockSim

Motor	Manuf & Type/ Casing	Color	Comment	Alt.	Delay*	Price	Buy Now!
All	All	All	All	All		All	All
I100 #71420	Cesaroni 2-Grain	Red Lightning LB	Restricted: 18+ / L1	5019 ft (1530 m)	8 sec	\$146.72 (HAZ)	
I115W-14 #81410	AeroTech 54/426	White Lightning	Restricted: 18+ / L1	3261 ft (994 m)	10 sec	\$80.24 (HAZ)	
I120 #71415	Cesaroni 1-Grain	Imax	Restricted: 18+ / L1	4027 ft (1227 m)	11 sec	\$110.43 (HAZ)	Sold Out ?
I140 #71417	Cesaroni 1-Grain	Skidmark	Restricted: 18+ / L1	3153 ft (961 m)	10 sec	\$100.96 (HAZ)	
I150 #71413	Cesaroni 1-Grain	Blue Streak	Restricted: 18+ / L1	3808 ft (1161 m)	11 sec	\$100.96 (HAZ)	Sold Out ?
I165 #71481	Cesaroni 1-Grain	C-Star	Restricted: 18+ / L1	4162 ft (1269 m)	11 sec	\$100.96 (HAZ)	Sold Out ?
I170G-14A #81412	AeroTech 54/426	Green	Restricted: 18+ / L1	3263 ft (995 m)	11 sec	\$80.24 (HAZ)	Sold Out ?
I215R-14A #81413	AeroTech 54/426	Redline	Restricted: 18+ / L1	3199 ft (975 m)	11 sec	\$80.24 (HAZ)	

Recommended 38mm Engines for the Goblin

This rocket kit includes an adapter to fit 38mm motors

Use the chart below to help determine which motor to use for this kit.

Estimated Altitude Predictions generated using RockSim

Motor	Manuf & Type/ Casing	Color	Comment	Alt.	Delay*	Price	Buy Now!
All	All	All	All	All		All	All
H152 #71323	Cesaroni 2-Grain	Blue Streak	Restricted: 18+ / L1	2372 ft (723 m)	10 sec	\$69.41 (HAZ)	Sold Out ?
H170M-14 #81331	AeroTech 38/360	Metalstorm	Restricted: 18+ / L1	1812 ft (552 m)	9 sec	\$66.33 (HAZ)	Sold Out ?
I55 #71330	Cesaroni 3-Grain	Mellow	Restricted: 18+ / L1	3176 ft (968 m)	8 sec	\$85.18 (HAZ)	
I140W #81290	AeroTech Single Use	White Lightning	Restricted: 18+ / L1	2886 ft (880 m)	10 sec	\$69.54 (HAZ)	
I175 #71339	Cesaroni 3-Grain	White	Restricted: 18+ / L1	3440 ft (1049 m)	11 sec	\$85.18 (HAZ)	
I180 #71337	Cesaroni 3-Grain	Skidmark	Restricted: 18+ / L1	2826 ft (861 m)	10 sec	\$91.50 (HAZ)	

I216 #71359	Cesaroni 5-Grain	Classic	Restricted: 18+ / L1	5000 ft (1524 m)	12 sec	\$116.74 (HAZ)	Sold Out ?
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Recommended 29mm Engines for the Goblin

This rocket kit includes an adapter to fit 29mm motors

Use the chart below to help determine which motor to use for this kit.

Estimated Altitude Predictions generated using RockSim

Motor	Manuf & Type/ Casing	Color	Comment	Alt.	Delay*	Price	Buy Now!
All	All	All	All	All		All	All
F20W-4 #62004	AeroTech Single Use	White Lightning		196 ft (60 m)	See Motor	\$47.07 2 pack	Sold Out ?
F40W-4 #64004	AeroTech 29/40-120	White Lightning	Restricted: 18+	348 ft (106 m)	See Motor	\$24.60 (HAZ)	
F42T-4 #64204	AeroTech Single Use	Blue Thunder		200 ft (61 m)	See Motor	\$47.07 2 pack	Sold Out ?
F50T-4 #65004	AeroTech Single Use	Blue Thunder		302 ft (92 m)	See Motor	\$42.36 (HAZ)	
F52T-5 #65205	AeroTech 29/40-120	Blue Thunder	Restricted: 18+	329 ft (100 m)	See Motor	\$24.60 (HAZ)	
F59 #71214	Cesaroni 1-Grain	White Thunder	Restricted: 18+	215 ft (66 m)	4 sec	\$37.85 (HAZ)	
F67-4W #66704	AeroTech Single Use	White Lightning		266 ft (81 m)	See Motor	\$47.07 2 pack	
F120 #71219	Cesaroni 1-Grain	Vmax	Restricted: 18+ / L1*	225 ft (69 m)	4 sec	\$37.85 (HAZ)	Sold Out ?
F50T-5	AeroTech		Restricted:	400 ft			

RockSim File for the Goblin Rocket Kit



To see how the *Goblin* looks and performs with each motor configuration, download the FREE RockSim design file.

This file can be opened with the FREE demo version of RockSim. Both Windows and Macintosh versions are available.

What is a RockSim Design file?

The RockSim software gives you a lot of information about the flight characteristics of this rocket: how high, how fast, where it will land, how will it react to wind, etc. The "design file" is intended to save you time. All the parameters (size, shape, weight, fin design, etc.) of this rocket have already been entered into the RockSim program, and saved as an electronic database file. You can just open it up in your copy of RockSim and start loading different rocket motors to run launch simulations. It's fun and educational to see the rocket zoom skyward, even before you built it. For more information about RockSim and to download a FREE 30-day demo version, click here.

Tools needed to assemble the Goblin

Basic Construction/Usage Tools:

- Pencil
- Ruler
- Scissors
- Masking Tape
- Hobby Knife - Hobby with #11 Blade

- Adhesives – 5 minute epoxy
- Long Dowel To Spread Glue Inside The Body Tube
- Sanding Block (or Sanding Tee)
- Acetone (nail polish remover) to clean up drips of epoxy
- Disposable rubber or vinyl gloves
- Paper Towels
- Sandpaper
- Finishing Supplies like sanding sealer, paint and sandpaper (200 and 400 grit).
- Dust Mask

To Launch This, You'll Also Need

- Recovery Wadding – Disposable | Reusable
- Rocket Motors – See the motor selection tab.
- Launch Pad & Controller – See FAQs tab for recommended choices.

Frequently Asked Questions about the Goblin

Q: What launch controller can I use to ignite the motors?

A:

We offer three different controllers that can be used for mid and high-power size rockets. The Aerotech Interlock, the North Coast Rocketry LaunchMaster™, and the Pratt Hobbies GO-BOX Controller.



Q: What launch pad should I use to launch this rocket kit?

A:

Since this is a big rocket that uses the rail guiding system, you'll need the Gun Turret launch pad. With its all-steel construction and tilting head, this pad was developed specifically for people that want something that makes it easy to load and launch those large rockets.



Q: Where is the CG supposed to be for this kit?

A:

At the top of this page, where the kit dimensions are, you'll find the location of the CP. This is the important number you should be looking at for stability. You want the CG location to be in front of the CP by about one tube-diameter. A greater distance between the CG and CP is OK. For more information on rocket stability, please [click here](#).



Q: I need help selecting motors. What should I do? Can you teach me how to select them myself?

A:

Watch this YouTube video – How to Select Model Rocket Engines

We encourage you to learn the proper motor selection technique. Please watch our YouTube video that will walk you step-by-step through the process



Reviews for the Goblin

Random Selected Reviews:

★★★★★ James T. -- 08/19/2021

Only just got it finished and flown once on a G79W. All parts fit well, showed up straight. It's my first hi power capable rocket but so far very happy.

★★★★★ Gary S. -- 10/05/2021

★★★★★ Daniel K. -- 08/22/2021

I'll be honest I haven't even started building this rocket kit yet... so just letting everybody know who reads this but... I'm going to save it as a winter project... But as far as the rocket kit itself it looks like just what you would expect from apogeerockets (not to give them too much kudos lol) but definitely quality components, well made for the type of rocket kit that it is... The reason why I bought this rocket kit is because I want to use the bigger engine mount that it comes with to launch the L impulse so that is what excites me the most about this rocket kit is its 54mm engine mount and of course the learning experience that goes with doing something like this I have never done before!... Now just like I said I haven't even started building it yet so all I can tell you is what I see from the kit itself and to me its perfect for my purposes so far I will eventually build this puppy in my apartment and next summer buy an engine and light the baby with electronics with my rocket club...

★★★★★ Douglas B. -- 08/16/2021

The Goblin was chosen for the Junior High Power Level 1 License build and flight. It fulfilled the requirement excellently, using a 29mm motor. The build was straight forward and well thought out by the kit designer. The parts were laser cut correctly, with the only requirement being to sand off the residual burnt material, to facilitate the glue joints. The flight was "on the money" as projected by RockSim.

The Goblin is an excellent choice for passing the Level 1 requirements!

These items Are Also Recommended For Use With This Product



G5000 RocketPoxy - 8-oz Package

G5000 is a two component filled epoxy with high strength bonds for joining fiberglass and carbon fiber composites with extremely high shear...

\$28.34

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Chute Release

The "ChuteRelease" is a device that holds a rolled-up parachute until the rocket descends to a low altitude. When it senses that pre-determined...

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The most versatile epoxy we've every found. With it: make perfect fin fillets, fill spirals in tubes, thread locker, fix imperfections and gaps...

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Gun Turret Pad

The Gun Turrent (rail NOT included) is a heavy duty launch pad that can support and launch those big-'n-burly high power rockets. It is made from...

\$565.99

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Sanding Tee

Apogee Sanding Tee

This sanding tee extrusion was specifically designed with the rocketeer in mind to make better flying rockets. Use it to sand fins smooth, to draw...

\$13.72

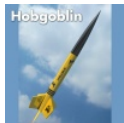
If You Like This Product, You Might Also Enjoy...



Great Goblin

The Great Goblin is a large (3" diameter) version of the classic Estes Goblin design. It is an easy-to-build rocket with a bold paint scheme and...

\$69.53



Hobgoblin

The Hobgoblin, reminiscent of a popular "D" powered kit from years ago, is designed to be an easy to assemble kit that flies to spectacular...

\$85.95

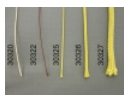
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The most versatile epoxy we've every found. With it: make perfect fin fillets, fill spirals in tubes, thread locker, fix imperfections and gaps...

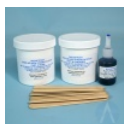
\$25.73



Kevlar Cord 300#

300 lb test strength braided cord Recommended for E,F,G size mid-power rockets. Pricing is per foot.

\$0.75



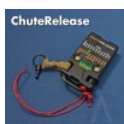
G5000 RocketPoxy - 2-Pint Package

G5000 is a two component filled epoxy with high strength bonds for joining fiberglass and carbon fiber composites with extremely high shear...

\$70.50

Sold Out

?



Chute Release

The "ChuteRelease" is a device that holds a rolled-up parachute until the rocket descends to a low altitude. When it senses that pre-determined...

\$141.52



Zephyr

The Zephyr is a great rocket to use for your Level-1 high power certification because it is big and robust. It flies low and slow, which helps...

\$104.94



Standard Rail Button (fits 1" Rail - 1010)

Rail buttons are used in place of launch lugs to guide the rocket off the pad. They are used on BIG rockets, where additional support is needed to...

\$4.46

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