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CATALOG

THE WORLD LEADER IN MODEL ROCKERY



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WELCOME TO ESTES MODEL ROCKETS!

There is no thrill quite like launching a model rocket you have built; watching it streak skyward, reach apogee (peak altitude), then gently return to earth using its recovery system. In a very real sense, model rocketeers experience the same excitement felt by space scientists and astronauts as they push humankind's horizons relentlessly forward to the stars. The best way to get started is with an Estes launch set or starter set (see pages 6-11). Each starter set has nearly everything you need to build and fly your first rocket. As you increase your rocketry skills, you can progress to new and exciting projects including multi-stage rockets, payload experiments, and scale models. Whether you are a beginner or expert, Estes Industries will help you advance higher, further, and faster in your adventures.



DUR VISION

To ignite the imagination of every generation by being the most trusted source for model rocketry.

OUR MISSIONE

To create safe, successful rocketry experiences for customers everywhere, from their backyards and school yards to worlds beyond.

THE FOUNDATIONS OF ROCKETRE

Estes was established by Vern and Gleda Estes 65 years ago, and it has carried a proud tradition of safe, exciting, and reliable launches. They established the best practices for motor manufacturing, model rocket design, and safe rocket flight. We use those same principles today and they have led model rocketry to a near flawless safety record. Millions remember the moment they first pressed launch and we're proud to be a part of your journey.



NAVIGATE DUR CATALOG WITH EASE!

The information found on this page will assist you on your journey through Estes 2023 Catalog! Here you will find how the product information is presented, what it means, as well as price and skill level. We hope a quick understanding will help you make an informed decision to find the right product for you. *Let's launch right in!*



KILL KEE

BEGINNER

Perfect for the first time flyer or quick weekend fun. Little to no build experience required. Some kits have snap together, pre-colored parts and easy to apply decals. Some glue may be required. Build Time: Under 1 hour

INTERMEDIATE

Here's is your first model rocketry challenge. Kits may include laser cut balsa or card stock fins and/or parts. Some sanding and gluing is required as well as finishing of your rocket with primer/paint and applying the rockets decals. Build Time: 1-4 hours

ADVANCED

You have knowledge of intermediate builds under your belt and are ready for the next step! Builds are usually more involved with multiple parts. Finishing is more complex and may require multiple paints and/or masking. Build Time: 4-8 hours

EXPERT

You're a pro and ready for more! Kits in this catagory may require lengthy or complex building steps. These kits will test your skills and require an advanced knowledge of rocket building. Advanced finishing knowledge required. Build Time: 6+ hours

MASTER

You are ready for the ultimate challenge! You have expert knowledge with complex kit builds as well as working with multiple materials. A keen eye for detail and precision will be required as these kits test all of your skills! **Build Time: 8+ hours**

STARTER SETS!

Start your Estes experience here!

Here's what's in the box:

One or two Estes model rockets (either in a parts kit or almost ready to fly), model rocket engines, one launch pad, one launch controller, and required flight supplies. For any additional launches, you will need to purchase additional Estes Engines and flight supplies.



Everything You Need to Launch Included! *
*Launch Controller requires 4-AA alkaline batteries sold separately.



Athena X[™] Starter Set* Product Number: 5304



Xtreme™

Length: 16.8 in. (42.7 cm) Diameter: 0.74 in. (19 mm) Recovery: Streamer Projected Altitude: 1600 ft. (488 m) Recommended Engines: 1/2 A6-2, A8-3, A8-5, B4-4, B6-6, C6-5, C6-7

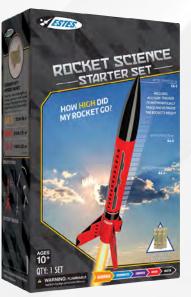
Athena™

Length: 17 in. (43.2 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1125 ft. (343 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5

MSRP \$59.99

*Hobby shop exclusive product.

Includes **2** Engines!



Rocket Science[™] Starter Set*

Product Number: 5302 Length: 12.6 in. (32 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: 1/2 A6-2, A8-3, B4-4, B6-4, B6-6, C6-5, C6-7 MSRP \$54.99

*Hobby shop exclusive product.

Includes **3** Engines and an Altitude Tracker!

LAUNCH SETS!

Almost ready-to-fly kits for easy weekend fun for the entire family!

Here's what's in the box:

One or two Estes model rockets (either in a parts kit or almost ready to fly), (1) Estes Electron Beam[®] Launch Controller, (1) Estes Porta-Pad[®] II Launch Pad, recovery system, and instructions for assembly and use.

Here's what's not in the box:

Recommended model rocket engines, plugs, starters, recovery wadding, tools, construction and finishing supplies for the rockets, and 4 new AA 1.5V alkaline batteries for the launch controller.



Includes everything you see here! *Launch Controller requires 4-AA alkaline batteries sold separately

Get flying!

Ignite your rocketry journey with an Estes Launch Set. These sets are designed to get you flying as quickly as possible, while allowing you to choose the motors that will work best for your flying field size. All the essentials are included in one easy purchase: a stunning, high-quality model rocket, launch pad and controller, and a clear visual set of instructions to get you flying. Everything in the box is reusable, so you can take to the skies again and again!





Taser[™] Launch Set

Product Number: 1491 Length: 17 in. (43.2 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, B6-6, C6-5, C6-7 11

MSRP \$51.99



Alpha III® Launch Set

Product Number: 1427 Length: 12.1 in. (30.7 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: 1/2 A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

MSRP \$49.99

EASY ASSEMBLY

ESTES

H NO PAIL





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Riptide[™] Launch Set Product Number: 1403 Length: 18 in. (45.7 cm) Diameter: 1.35 in. (34 mm) **Recovery: Parachute** Projected Altitude: 675 ft. (206 m) Recommended Engines: B4-4, B6-4, C6-5 **MSRP \$51.99**

NO GLUE

REQUIRED

NO ASSEMBLY

REQUIRED!

Journey[™] Launch Set

Product Number: 1441

Length: 19.3 in. (49 cm)

Recommended Engines:

A8-3, B4-4, B6-4, C6-5, C6-7

Recovery: Parachute

MSRP \$52.99

Diameter: 0.98 in. (25 mm)

Projected Altitude: 1100 ft. (335 m)

2





Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 Sold Separately: A10-3T w/ Engine Adapter Length: 14.5 in. (36.8 cm) Diameter: 0.98 in. (25 mm)

Rascal[™] & HiJinks[™] Launch Set

Product Number: 1499

Length: 14.5 in. (36.8 cm)

Diameter: 0.98 in. (25 mm)

Recovery: Parachute

Projected Altitude: 1100 ft. (335 m)

HiJinks™

Rascal™

Recovery: Parachute Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 Sold Separately: A10-3T w/ Engine Adapter

MSRP \$57.99

-



"Hi Jinks

Crossfire[™] ISX

C5-3, C6-3, C6-5

Amazon[™]

Length: 15.6 in. (39.6 cm) Diameter: 0.98 in. (25 mm) **Recovery: Parachute** Projected Altitude: 1150 ft. (351 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7

Tandem-X[™] Launch Set

Length: 29.4 in. (74.7 cm)

Diameter: 1.35 in. (34 mm)

Recovery: Parachute Projected Altitude: 600 ft. (183 m) **Recommended Engines:** B4-2, B4-4, B6-2, B6-4,

Product Number: 1469

MSRP \$56.99



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ASY ASSEMBLY

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BEGINNER ROCKET KITS

Our easiest rockets to build & fly!

Gnome™

Product Number: 0886 Length: 10.3 in. (26.2 cm) Diameter: 0.54 in. (14 mm) Recovery: Streamer Projected Altitude: 800 ft. (244 m) **Recommended Engines:** 1/4 A3-3T, 1/2 A3-2T, 1/2 A3-4T, A3-2T, A3-4T, A3-6T, A10-3T

MSRP \$10.99

ALSO AVAILABLE **IN A BULK PACK** See Pq. 65

Alpha III® Product Number: 1256 Length: 12.1 in. (30.7 cm)

Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: 1/2 A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

MSRP \$23.99

ALSO AVAILABLE **IN A BULK PACK** See Pg. 64

Firehawk[™]

Product Number: 0804 Length: 11.2 in. (28.4 cm) Diameter: 0.74 in. (19 mm) Recovery: Parachute Projected Altitude: 550 ft. (168 m) **Recommended Engines:** 1/4 A3-3T, 1/2 A3-2T, A3-2T, A3-4T, A3-6T, A10-3T **MSRP \$11.99**



NO ASSEMBLY REQUIRED!

Diameter: 0.98 in. (25 mm) **Recovery:** Parachute

Projected Altitude: 1125 ft. (343 m) **Recommended Engines:** A8-3, B4-4, B6-4, C6-5

USA

NASA

Athena™ Product Number: 2452 Length: 17 in. (43.2 cm)

Generic E2X®

Product Number: 2008 Length: 13.5 in. (34.3 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1325 ft. (404 m) **Recommended Engines:** 1/2 A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 Sold Separately: A10-3T w/ Engine Adapter

MSRP \$13.99

ALSO AVAILABLE IN A BULK PACK See Pa. 64

BEGINNER KITS



Illusion™

Product Number: 7299 Length: 19.3 in. (49 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1125 ft. (343 m) **Recommended Engines:** A8-3, B4-4, B6-4, C6-5. C6-7 [7]

MSRP \$21.99

These easy to build, high flying rockets are perfect for the beginner or quick weekend trips to the launch field!

GUDANCE SECTION GLIA-R-2 SERIAL NO. GLIA 1969

FERRA GLIVI



Length: 20 in. (50.8 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 **MSRP \$18.99**

5

Star Hopper™

The Star Hopper is based on a rumored 1950s secret project to counter the "flying saucer threat." The Estes Star Hopper is a no-glue, no-paint, beginner level kit that you can build and launch up to 400 feet all in the same day. The rocket features detail-molded plastic parts, atomic-age styling, and a 18-inch streamer for recovery.

Product Number: 7303 Length: 7.4 in. (18.8 cm) Diameter: 0.74 in. (19 mm) **Recovery: Streamer** Projected Altitude: 400 ft. (122 m) Recommended Engines: 1/2 A3-4T, A3-2T, A3-4T, A10-3T 5 **MSRP \$14.99**

BANDIT 3

BANDIT 2

BANDIT

SNAP TOGETHER NO GLUE REQUIRED

ALSO AVAILABLE IN A BULK PACK See Pg. 65



3 Bandits[™]

Product Number: 2435 Length: 10.8 - 11.1 in. (27.4 - 28.2 cm) Diameter: 0.74 in. (19 mm) Recovery: Parachute Projected Altitude: 550 ft. (168 m) Recommended Engines: 1/2 A3-4T, A3-2T, A3-4T, A3-6T. A10-3T

MSRP \$25.99

Recommended Engines: B4-4, B6-4, C6-5 MSRP \$21.99

Product Number: 7292

Length: 17.8 in. (45.2 cm)

Diameter: 1.1 in. (28 mm)

Projected Altitude: 875 ft. (267 m)

Recovery: Parachute

Terra GLM™

SNAP TOGETHER NO GLUE REQUIRED

Dragonite[™]

Product Number: 2169 Length: 16 in. (40.6 cm) Diameter: 1.1 in. (28 mm) **Recovery: Parachute** Projected Altitude: 925 ft. (282 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 [] **MSRP \$18.99**

Ghost Chaser™

All the molded plastic parts in this rocket are a translucent color. Insert the rocket engine and you can see it inside! Truly something unique for your rocket collection!

Product Number: 7300 Length: 23 in. (58.4 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1100 ft. (335 m) **Recommended Engines:** A8-3, B4-4, B6-4, C6-5, C6-7

MSRP \$21.99

Cadet[™]

Product Number: 2021 Length: 17.5 in. (44.5 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-7 5

CADET :

MSRP \$15.99

E CHASER



· Easily connects to your computer's USB port for downloading your videos and charging the camera

COME ALONG

FOR THE RIDE!



ASTROCAM

Product Number: 7308 Length: 20 in. (50.8 cm) Diameter: 0.98 in. (25 mm) **Recovery: Parachute** Projected Altitude: 900 ft. (274 m) **Recommended Engines:** A8-3, B4-4, B6-4, C6-5



STROCAM

RSTROGRIM

Universal AstroCam® (Camera Only w/ Holder) Product Number: 2208 Weight: 0.43 oz. (12.2 g)

Product images may not be to scale. For display purposes only.







INTERMEDIATE ROCKET KITS

Take the next step in model rocketry with rockets that are fun and easy to build!

Hi-Flier®

Product Number: 2178 Length: 12 in. (30.5 cm) Diameter: 0.74 in. (19 mm) **Recovery: Streamer** Projected Altitude: 1500 ft. (457 m) **Recommended Engines:** 1/2 A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 Sold Separately: A10-3T w/ Engine Adapter

MSRP \$12.99

Increase your building skills with a rocket capable of Xtreme heights!

Xtreme[™]

Product Number: 7306 Length: 16.8 in. (42.7 cm) Diameter: 0.74 in. (19 mm) Recovery: Streamer Projected Altitude: 1600 ft. (488 m) **Recommended Engines:** 1/2 A6-2, A8-3, A8-5, B4-4 B6-6. C6-5. C6-7 **MSRP \$15.99**

Luna Bug[™]

Product Number: 0816 Length: 3.6 in. (9.1 cm) Diameter: 0.54 in. (14 mm) Recovery: Featherweight Projected Altitude: 800 ft. (244 m) **Recommended Engines:** 1/4 A3-3T, 1/2 A3-2T, 1/2 A3-4T, A3-2T, A3-4T, A3-6T, A10-3T

MSRP \$7.99

Green Eggs™

Product Number: 7301 Length: 23.6 in. (59.9 cm) Diameter: 1.8 in. (46 mm) **Recovery:** Parachute Projected Altitude w/ Egg: 825 ft. (251 m) Projected Altitude w/o Egg: 1050 ft. (320 m) **Recommended Engines:** w/ Egg: C11-3, D12-3 w/o Egg: C11-5, D12-5 **MSRP \$23.99**

Place an egg in the rocket payload section!

ALSO AVAILABLE IN A BULK PACK See Pa. 67



Wizard™

Product Number: 1292 Length: 12 in. (30.5 cm) Diameter: 0.74 in. (19 mm) Recovery: Streamer Projected Altitude: 1600 ft. (488 m) **Recommended Engines:** 1/2 A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 Sold Separately: A10-3T w/ Engine Adapter

MSRP \$14.99

ALSO AVAILABLE IN A BULK PACK See Pg. 66

INTERMEDIATE KITS

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INTERMEDIATE KITS

Crossfire ISX™

SWILT

220 Swift[™]

Product Number: 0810

Length: 4.5 in. (11.4 cm)

Recovery: Featherweight

Recommended Engines: 1/4 A3-3T, 1/2 A3-2T, 1/2 A3-4T, A3-2T, A3-4T, A3-6T, A10-3T MSRP \$10.99

Diameter: 0.54 in. (14 mm)

Projected Altitude: 850 ft. (259 m)

Product Number: 7220 Length: 15.6 in. (39.6 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7

MSRP \$14.99

Baby Bertha[™]

4 Ejection

6

FLUTTER

RECOVERY

6

LANDING

Featherweight rockets are so

lightweight that they do not need a recovery system. They "flutter" on their return to earth

for a soft landing!

RABY

8

COAST PHASE

0

THRUST

PHASE

IFT OFF!

Product Number: 1261 Length: 12.8 in. (32.5 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 575 ft. (175 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5

MSRP \$15.99

A true Estes icon and one of the best selling model rockets of all time, the Alpha is perfect for the beginner looking to take the next step in model rocketry. Easy to build, this high flyer will have you out at the launch pad in no time!

Alpha[®]

Product Number: 1225

Recovery: Parachute Projected Altitude: 1000 ft. (305 m)

Recommended Engines: 1/2 A6-2, A8-3, A8-5, B4-4,

B6-4, B6-6, C6-5, C6-7 Sold Separately: A10-3T w/ Engine Adapter

MSRP \$20.99

ALSO AVAILABLE

IN A BULK PACK

See Pg. 67

Length: 12.3 in. (31.2 cm)

Diameter: 0.98 in. (25 mm)



Der Red Max[™]

Product Number: 0651 Length: 16.3 in. (41.4 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-5

MSRP \$21.99

WISH IT WAS BIGGER? See Pro-Series Pq. 58

Mosquito™

Product Number: 1345 Length: 3.8 in. (9.7 cm) Diameter: 0.54 in. (14 mm) Recovery: Featherweight Projected Altitude: 800 ft. (244 m) Recommended Engines: 1/4 A3-3T, 1/2 A3-2T, 1/2 A3-4T, A3-2T, A3-4T, A3-6T, A10-3T MSRP \$7.99

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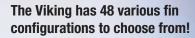
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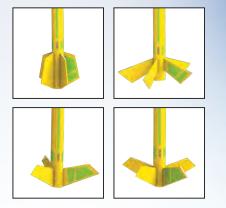
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Big Lertha



It's up to you to decide how to build the Estes Viking! How many fins? Where to place them? It's your choice to create the rocket YOU want!



Big Bertha®

Product Number: 1948 Length: 24 in. (61 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 500 ft. (152 m) Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-5 MSRP \$29.99

> One of Estes' best selling and iconic rockets of all time a true classic!

Viking™

Product Number: 1949 Length: 12.1 in. (30.7 cm) Diameter: 0.74 in. (19 mm) Recovery: Streamer Projected Altitude: 1600 ft. (488 m) Recommended Engines: 1/2 A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 Sold Separately: A10-3T w/ Engine Adapter MSRP \$14.99

ALSO AVAILABLE IN A BULK PACK See Pg. 66

Mean Machine[™]

It's so tall, we had to split it in half for easy transport and storage!

Product Number: 1295 Length: 79 in. (200.7 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 700 ft. (213 m) Recommended Engines: D12-3, D12-5, E12-4, E12-6 Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75 MSRP \$35.99

Note: Advanced Skill Build The Mean Machine is an Advanced Skill Kit but shown here for comparison purposes.

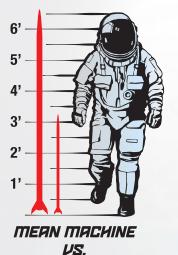
Mini Mean Machine™

Product Number: 0865 Length: 39 in. (99.1 cm) Diameter: 0.74 in. (19 mm) Recovery: Parachute Projected Altitude: 225 ft. (69 m) Recommended Engines: A3-2T, A3-4T, A10-3T

MSRP \$16.99

Note: Not to Scale Shown for display purposes only. Mini Mean Machine is half the size of regular Mean Machine.

MINT MEAN MACHINE



ТОЛ. ТОЛИТИКИ ТЕЛИКИ ПАСИЛЕ The Mean Machine stands at over 6 ½ feet tall and disassembles in the middle for easy transportation and storage!



Twist the 2 halves of the Mean Machine body tube in opposite directions and then pull apart.



ADVANCED ROCKET KITS

Take your skills to the next level with these exciting & challenging builds!



Product Number: 7259 Length: 23.4 in. (59.4 cm) Diameter: 1.33 in. (34 mm) Recovery: Parachute Projected Altitude: 600 ft. (183 m) **Recommended Engines:** A8-3, B4-4, B6-4, C6-5 **E**

MSRP \$23.99

During the Tazz recovery, the rocket spins back to earth while the engine mount separates and gently descends with an attached streamer!

Tazz™

Product Number: 7282 Length: 16.6 in. (42.2 cm) Diameter: 0.98 in. (25 mm) Recovery: Streamer, Spin Projected Altitude: 700 ft. (213 m) **Recommended Engines:** A8-3, B6-2, B6-4, C5-3, C6-3

2

ESTES

NIKE-X

MSRP \$24.99

Fun to build and even better to fly! Soar to great heights with these two sky piercing customer favorites!

Hi-Flier®XL

Product Number: 3226 Length: 31 in. (78.7 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 1325 ft. (404 m) Recommended Engines: C11-3, D12-5, D12-7, E12-6, E12-8 Sold Separately: C5-3, C6-3 w/ Engine Adapter Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75 [7]

MSRP \$23.99

Ter.

Big Daddy[™]

Product Number: 2162 Length: 19 in. (48.3 cm) Diameter: 3 in. (76 mm) **Recovery: Parachute** Projected Altitude: 900 ft. (274 m) Recommended Engines: C11-3, D12-3, D12-5, E12-4, E12-6

Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75

MSRP \$37.99

EXPERT ROCKET KITS

Put your skills to the ultimate test and enjoy the satisfaction of a build done well!

The Orbital Transport is an Estes classic, flown and treasured by rocketeers since the early days of rocketry. It was originally designed by Wayne Kellner and introduced to the nation in the late '60s, proving to be one of Estes' most popular models. After it was taken out of production, rocketeers quickly bought out the remaining kits, and they've been begging for its return ever since. Scaled up from the original, it's bigger and better than ever - this is the *Super* Orbital Transport!

> BES SELLER

Super Orbital Transport[™]

Product Number: 7314 Length: 31.3 in. (80 cm) Diameter: 1.33 in. (34 mm) **Recovery: Parachute** Projected Altitude: 800 ft. (244 m) **Recommended Engines:** C11-3. D12-5 Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75

Ε

This "upscaled" version of the original "K-20" released in 1965 stands 29 inches tall and flies on C11 and D12 engines. Thoughtfully redesigned to include all plastic cones and transitions, this unique spacecraft is still a challenging build. It is a faithful replica of the model that was featured on Estes first full color catalog in 1966. Every collector should have this "Super Snooper"!

Super Mars Snooper[™]

Product Number: 7309 Length: 29 in. (73.7 cm) Diameter: 1.33 in. (34 mm) Recovery: Parachute Projected Altitude: 800 ft. (244 m) **Recommended Engines:** C11-3, D12-5 Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75

MSRP \$37.99

ESTES

Interceptor[™]

Product Number: 1250 Length: 26 in. (66 cm) Diameter: 1.33 in. (34 mm) Recovery: Parachute Projected Altitude: 525 ft. (160 m) Recommended Engines: B4-2, B6-2, B6-4, C6-5 **MSRP \$32.99** Ξ

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Most full-size rockets that leave Earth's atmosphere are multi-staged rockets. The amount of fuel required to lift millions of pounds of mass requires huge rockets that have multiple stages (segments) stacked on top of the main booster stage. Each upper-stage requires its own rocket engine and fuel to increase the velocity needed to escape the Earth's gravitational pull and reach LEO (Low Earth Orbit – 99 to 1200 miles). Estes multi-stage model rockets will not get to LEO, but they are designed to increase a rocket's maximum altitude.

A two-stage model rocket uses a first-stage booster engine (It has no ejection charge and is designated as a "dash zero" i.e; B6-0) to get the rocket moving vertically. When the booster engine uses up its propellant, it then ignites the upper stage engine. The booster separates from the upper stage and it tumbles to the ground. After the upper stage is ignited (also called a sustainer stage), it then accelerates to its maximum height (or apogee) and an ejection charge at apogee deploys the recovery system.

A three-stage model rocket (like the Comanche-3[™]) uses a first stage booster engine to get the rocket moving vertically. When the booster engine uses up its propellant, it then ignites the second-stage engine. The first stage separates from the second stage and it tumbles to the ground. After the second stage is ignited, it carries the rocket higher until it uses up its propellant, and then it ignites the third stage. The second stage separates from the upper third stage, and it tumbles to the ground. The third stage then accelerates to its maximum height (or apogee), and an ejection charge at apogee deploys the recovery system.

While a full-size rocket can take several minutes to burn through the various stages to obtain LEO, in an Estes rocket, the boost and upper stage burnouts can be measured in a matter of seconds. Multi-stage model rockets are challenging and exciting to launch.



STAGE 1 - Booster Stage

Comanche-3™

STAGE 3

Each Multi-Stage

rocket booster

contains an Estes

engine. Once the engine fuel is

exhausted, the

boosters detach and

tumble gently to the

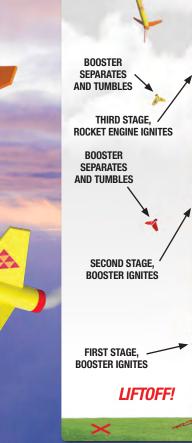
around for reuse!

STAGE 2

Product Number: 7245 Length: 41 in. (104.1 cm) Diameter: 0.98 in. (25 mm) Recovery: Streamer(s), Tumble Projected Altitude: 2250 ft. (686 m) Recommended Engines: Rocket Only: A8-3, B4-4, B6-4, C6-5 Two Stages: Rocket: B4-4, B6-4, B6-6, C6-5, C6-7 Booster: B6-0, C6-0 Three Stages: Rocket: B6-6, C6-7 Booster: B6-0. C6-0 Booster: C11-0, D12-0 A **MSRP \$25.99**

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STAGE 1



STREAMER RECOVES

MULTI-STAGE ROCKET FLIGHT SEQUENCE

EJECTION

COAST PHASE

U 4

8008

Reach amazing altitudes with this high flying multi-stage rocket!

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Mongoose™

Snakes won't get close to this one! The Mongoose is a two stage rocket that builds into one over the top, high performance rocket! Soars to astonishing heights of 1,600 feet using the Estes standard model rocket engines.

Product Number: 2092 Length: 27 in. (68.6 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute, Tumble Projected Altitude: 1600 ft. (488 m) Recommended Engines: Rocket Only: A8-3, B4-4, B6-4, C6-5 Two Stages: Rocket: A8-5, B6-6, C6-7 Booster: B6-0, C6-0

MSRP \$18.99

Boosted Bertha[™]

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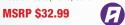
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BOOSTED

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A sport rocket at its core, this multistage flying model rocket can reach altitudes of 1000 feet! A colorful 18 inch parachute provides a soft landing, so the Boosted Bertha can be quickly prepared for another launch.

Product Number: 1946 Length: 28.2 in. (71.6 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute, Tumble Projected Altitude: 1000 ft. (305 m) Recommended Engines: Rocket Only: B4-2, B4-4, B6-2, B6-4, B6-6, C6-5, C6-7 Two Stages: Rocket: A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 Booster: A8-0, B6-0, C6-0

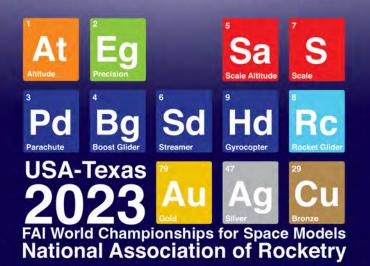


WORLD SPACEMODELING CHAMPIONSHIPS ARE RETURNING TO THE USA – AUSTIN, TX JULY 1^{sT} thru 8^{TH} – 2023





The National Association of Rocketry, the world's oldest and largest sport rocketry organization, in conjunction with the Academy of Model Aeronautics, is pleased to host the 2023 FAI World Championships for Space Models.



For More Information Visit:

www.nar.org/championships





Estes is a proud sponsor of the competition and the U.S. Team

SA-2061 Sasha™

Inspired by Russian military design, this scale-like model rocket is sure to enthuse the most dedicated rocketeer. A masterful build, this high flying booster model rocket can reach heights of 2300 feet when powered by E model rocket engines in both stages. $\overline{\mathcal{X}}$

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Product Number: 7271 Length: 31.5 in. (80 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 2300 ft. (701 m) Recommended Engines: Rocket Only: C11-3, C11-5, D12-5, E12-6 Two Stages: Decider, D12-5, D12-5, E12-6

Rocket: D12-5, D12-7, E12-8 Booster: D12-0, E12-0

Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75

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MSRP \$32.99

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The Designer Signature Series is a series of kits designed by some of the most famous pioneers of model rocketry. Some are re-introductions of lesser-known classics and others are never-before-seen designs that never made it out of the R&D room. Every serious model rocket collector will want the complete series for their own museum!



Bill Simon was a creative writer and lead designer for Estes in the '60s and early '70s, and he presided over a golden age of rocketry. His designs, such as the *Drifter, Farside*, and *Cobra*, have gone on to become the cornerstones of treasured collections, and his work has taught a generation of rocketeers.

The Belt Object Survey Ship (B.O.S.S.) was designed nearly 40 years ago, but the prototype never made its way to release. Bill Simon created this in partnership with Estes after his departure from the company. It was designed at a time where people were hungry for spaceflight innovations, and nuclear propulsion and solar power felt like the best way forward.

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This B.O.S.S. rocket uses one tail fin, two engine pod assemblies, and a large circular plate to stabilize the rocket - a rare asymmetrical structure and a challenging build. We've matched the artistry of this design with high-quality components to bring you the latest in the Estes Designer Series.

B.O.S.S.™

(Belt Object Survey Ship) Product Number: 7316 Length: 27.8 in. (70.6 cm) Diameter: 1.33 in. (34 mm) Recovery: Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-4, B6-4, C6-5

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MSRP \$34.99



In 1960, Vern Estes, founder of Estes Industries, designed the Astron Scout[™], which was the first Estes model rocket packaged for sale as a complete kit. During a span of more than 20 years, Estes sold tens of thousands of Astron Scout kits, inspiring countless young people to pursue technical careers.

Orange Bullet[™]

Product Number: 7295 Length: 5.9 in. (15 cm) Diameter: 0.74 in. (19 mm) Recovery: Featherweight Projected Altitude: 500 ft. (152 m) Recommended Engines: 1/2 A6-2, A8-3



The Orange Bullet was the prototype for the famous Astron Scout. The original design included metal weights glued to the end of the fins to shift the center of gravity after the engine ejected for a tumbling recovery system. While that approach worked, Vern achieved the same effect by using the weight of the rocket engine itself!



G. Harry Stine (NAR #02) is known as the "Father of Model Rocketry" and founder of the National Association of Rocketry (NAR). He was one of the original pioneers that founded the hobby right alongside Vern Estes.

Antar™

Product Number: 7310 Length: 23.2 in. (58.9 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 450 ft. (137 m) Recommended Engines: B6-2, B6-4, C6-5

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MSRP \$32.99

G. Harry Stine was also a talented writer and visionary who believed that mankind would soon travel to and live in space. He wrote several fiction books in the early 1950's including best sellers *Starship Through Space* and *Contraband Rocket*. Many of the characters in his books were based on real people he met while working at White Sands. His stories also needed spaceships that didn't exist yet so he created them. Athena, Fafnir, Vittoria, Absyritis were all designed with incredible detail by a fictional company Hueco Spacecraft Inc.

MARS ONE EXPEDITION: UTOPIA PLANITIA

DR. GRACE HENRY, MISSION COMMANDER

190CT2035 11:12 UT

CMDR HENRY: Altitude 3,000 meters. Some buffeting... increase throttle... 2,000. Landing radar engaged... Surface details visible... hello Utopia! 1,000 meters. MAV throttle-up to 60 percent... landing site targeted. Descending at 20 meters per and slowing rapidly... 500 meters. Correcting drift... 100 meters... 50... lots of dust... 20... 10... contact signal! Engine cut-off.

190CT2035 11:14 UT

CMDR HENRY: Utopia Dutpost reporting. Please be advised: as of this moment, there IS life on Mars!

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Commander's Surface Journal

Mission Day Ol

"Mars is magnificent! After the swirling red dust kicked up by the MAV settled, we finally got a look at Utopia Planitia - the Plains of Utopia - the vast impact basin in the Mars northern hemisphere that will be our base of operations for the next 33 days. The dusty dunes stretch to the horizon and are every shade of red and brown imaginable, and the sky ranges through the day from vivid pink to baby blue. Truly magnificent!"

Mission Day D3

"I'm ready to direct the crew to unload the MAV and set up the Utopia Outpost habitats. We have a lot of ground to cover - can't wait to test the LAMPMU backpack. LAMPMU... that's quite the mouthful! Going to have to come up with a better name!"

Mission Day OL

"We fired up the backpack today. It was flawless! I've run the simulator many times, but nothing can prepare you for the actual article. So exhilarating! With the backpack you don't so much fly, you leap! When I told the crew this, they started calling it 'The Leaper.' We'll see if the nickname sticks…"

Mission Day 15

"The MAV is our only ticket off Mars and today we almost lost it. Mission Pilot Finn Watts was conducting his daily inspection and noticed a growing fissure in the soil under landing strut #2. Acting quickly. Watts activated the MAV thrusters and repositioned the lander to a rocky plain 100 meters east of Utopia Outpost. If Watts had waited even one more minute. the fissure would have toppled the lander. We owe him our lives."

Mission Day 22

"A discovery for the ages! Excavating an early-Mars streambed formation, Mission Exopaleontologist Max Kolb uncovered evidence of fossilized flora - an ancient Martian grove, right under our feet! The answer to the question of life on Mars has been answered. Mars was once a living planet. Will it be again?"

Mission Day 33

"Today ends our mission and humanity's first adventure on another world. We leave as we arrived, peaceful visitors from the blue planet, seeking only to learn from the red planet, and to maybe, someday, make it our home."

DESTINATION MARS

Mission: Interplanetary transport Complement: 32 crew / up to 120 colonists Propulsion: Phased fusion induction First Flight: 2052

Operational Notes: Support the Mars exploration and colonization effort. The Mars Longship completes the Earth-Mars circuit every 12 to 18 months, depending on orbital positioning. This massive transport remains in Mars orbit while colonists and cargo are ferried to the surface aboard next generation MAV Landers. Each transit of the Mars Longship replenishes the Mars base and acts as a vital link for the colonists to old Earth.

This spectacular Estes Mars Longship includes laser cut wood fins and struts, an extended nosecone/crew compartment, molded plastic and cardstock components, and two big sheets of detailed water-slide decals to add the perfect touch of realism! Be prepared for long, slow liftoffs on a recommended Estes D or E engine. Impressive on the pad and in flight!

Product Number: 7296 Length: 27.2 in. (69.1 cm) Diameter: 1.33 in. (34 mm) Recovery: Parachute Projected Altitude: 500 ft. (152 m) Recommended Engines: D12-3, E12-4

Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75

MSRP \$37.99



DESTINATION MARS

MAN

Mission: Surface-orbit transport Complement: 2 crew / 6 science staff Propulsion: Focused reaction jets First Flight: 2035

Operational Notes: The robust Mars Ascent Vehicle (MAV) was essential to the success of the Mars One Expedition. Landing and returning the crew safely paved the way for successive missions, with longer surface stays and more challenging goals. The next generation MAVs, with increased capacity for crew and cargo, would help build the Mars base, and later, the Mars colony.

Simple to assemble, the MAV features molded plastic fins struts, a detailed prewrapped body tube, and a realistic "capsule" nosecone, the Estes MAV Lander can be built and flown in the same day. A durable, dependable, and fun rocket that flies great on a recommended Estes C engine.

Product Number: 7283 Length: 12.7 in. (32.3 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 250 ft. (76 m) Recommended Engines: C5-3, C6-3 MSRP \$21.99

DESTINATION MARS **Lepper**™

Mission: Personal transport Complement: 1 pilot Propulsion: High efficiency chemical reaction rockets First Flight: 2035

Operational Notes: Official designation – Low-Altitude Mars Personal Maneuvering Unit (LAMPMU). Carried to the surface on the Mars One Expedition, the LAMPMU, often referred to as "The Leaper," enabled crew to rapidly travel between habitats. The first Mars surface test flights were conducted by Mission Commander Grace Henry. Modified versions of The Leaper (Mark II – Mark V) were utilized by each successive Mars Expedition.

The Leaper is a lightweight, highly detailed, pre-finished model rocket that requires almost no assembly - you'll be ready to "leap" in minutes! Count down and watch the Leaper lift-off from the launch pad and fly up to 75 ft. on a recommended Estes mini engine before gently tumbling back, ready to leap again!

Product Number: 7297 Height: 7.7 in. (19.6 cm) Diameter: 0.54 in. (14mm) Diameter w/ legs: 23.4 in. (59.4 cm) Recovery: Featherweight Projected Altitude: 75 ft. (23 m) Recommended Engines: A10-0T

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MSRP \$24.99

J DACE CORPJ

The first Vesta Intrusion of 2055 was a watershed moment for humanity. An alien trespasser was detected lurking among the asteroids and humankind realized that in the face of a true threat, it was helpless. Space Corps assessed its vulnerabilities and prepared for a possible second intrusion. Twenty-one years later, those preparations are put to the test ...

31JUL2076 0111 UT. SECURE CHANNEL AUTHORIZED. BEGIN TRANSMISSION. EXTRA-SOLAR INTRUDER DETECTED NEAR VESTA, INTENTIONS UNKNOWN, ALL STATIONS AND ALL VESSELS GO IMMEDIATELY TO MAXIMUM THREAT LEVEL. HOSTILITIES MAY BE IMMINENT ... END TRANSMISSION

ABOARD SPACE CORPS CENTURION INTERCEPTOR 1248 - "BLUEBIRD" -ON PATROL NEAR ASTEROID VESTA

Centurion pilot Lt. Dominic "Dominator" Andrews listened to the threat alert and shared a glance with his navigator and weapons officer, Lt. Billy "Booster" Barnes. They didn't need a warning about a mysterious intruder... they were staring at the thing! Sleek, menacing, and utterly alien, the massive spaceship was sliding effortlessly past their Centurion interceptor, away from Vesta and toward the inner planets, and Earth.

There was no mistaking what they were seeing - the Vesta Intruder had returned! But what were its intentions? Barnes whispered to his pilot "what do you think, Dom? Friend or foe?" The aft end of the strange craft was spewing particles and glowing a ghostly green. The forward section bulged with strange protrusions. There were no obvious weapons. Just immense, intimidating power.

Andrews knew it was no secret that Space Corps had been planning for this day since the first Vesta intrusion in '55. He knew that a fleet of Centurion interceptors, Corvette attack vessels, and every other defensive asset of the Corps were even now deploying to face the Intruder. He knew these things, but he wondered: was it enough?

He thought for a moment of his Space Corps Academy days. "Know your job, do your part, and the rest will follow." Admiral Beard used to tell the assembled students. The Old Man had great faith in the Corps and the cadets he was training. Lt. Dominic Andrews hoped he was right...

JPACE CORPJ VESTR INTRUDER

Mission: Unknown **Complement: Unknown** Propulsion: Unknown First Flight: Unknown

Operational Notes: Its origins are a mystery, as is its composition and its purpose. What is known is this: on June 24, 2055, a Corvette convey detected an anomalous energy source near Asteroid Vesta, Investigating, the patrol encountered a large alien spacecraft engaged in observations of Earth. As quickly as it was spotted, the mysterious intruder disappeared in a flash of green light. Stunned by undeniable evidence of an alien intelligence, an uncertain humanity prepared for its return. Twenty-one years later, it did return. And this time, humanity was ready...

At more than two feet in length, the Vesta Intruder is large and intimidating. Claw-like fins, bulging mid-body strakes, and an immense molded nosecone come together to make one truly alien-looking rocket! This Advanced-Level kit will test your modeling skills, but the results are worth it, especially when you watch it lift-off under the power of a recommended Estes C or D engine.

Product Number: 7312 Length: 25.2 in. (64 cm) Diameter: 1.64 in. (42 mm) **Recovery: Parachute** Projected Altitude: 650 ft. (198 m) **Recommended Engines:** C11-3, D12-5 **Requires (Sold Separately):** 3/16 in. Maxi[™] Launch Rod See Page: 75 R

MSRP \$37.99

JPACE CORPJ **DRRC-1**™

Mission: Exploration, Survey Complement: 2 crew / 2 science staff Propulsion: Ion reaction (2nd gen) First Flight: 2052

Operational Notes: Before the Deep Atmosphere Research Craft (DARC-1), only robotic probes could safely pierce the crushing atmospheres of Venus, Jupiter, Saturn, and other impenetrable worlds. Lifting body characteristics for stability in dense atmospheres, and a breakaway aft booster to escape deep gravity wells are crucial features of this research rocket. When the original DARC-1 was lost during a rescue mission over Titan, Space Corps authorized six new spacecraft.

Designed around a detailed, conical plastic shroud, this kit is unlike any other model rocket! Show up at your launch site with this one, and watch every head turn as it roars off the pad on a recommended Estes B or C engine. Challenge yourself with the Expert-Level DARC-1 kit.

Product Number: 7307 Length: 9.3 in. (23.6 cm) Diameter: 0.74 in. (19 mm) Wingspan: 6.9 in. (17.5 cm) Recovery: Parachute Projected Altitude: 400 ft. (122 m) Recommended Engines: B6-2, C5-3, C6-3

MSRP \$32.99

No Assembly Required!

JPACE CORPJ **CENTURION**™

Mission: Interceptor, fighter Complement: 1 pilot / 1 navigator Propulsion: Pulsed plasma thruster First Flight: 2061

Operational Notes: Developed under a crash program in response to the first Vesta Intrusion of 2055. The Centurion Space Interceptor is armed with a phased energy cannon array, and mounting points for missiles and kinetic weapons. This compact fighter is highly maneuverable and capable of 12G acceleration and Mach 6.3 in atmosphere. The Centurion fleet is tasked with protecting Earth and the Solar-colonies from any threat.

The Estes Space Corps Centurion Fighter is molded from highly durable EPP foam. When bent or crushed the Centurion pops back into shape and is ready to launch again. This model rocket comes pre-finished and almost-ready-to-fly – simply attach the parachute and you're all set to launch!

> Product Number: 7291 Length: 11.1 in. (28.2 cm) Diameter: 0.74 in. (19 mm) Wingspan: 7.5 in. (19.1 cm) Recovery: Parachute Projected Altitude: 700 ft. (213 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5 MSRP \$32.99

JPACE CORPJ

Mission: Patrol, transport, search and rescue, intercept Complement: 6 – 12, depending on configuration Propulsion: Plasma propulsion engine First Flight: 2038

Operational Notes: The primary "ship of the line" for Space Corps. The Corvette Class rocket has been pressed into many roles within the fleet, including patrol, transport, interdiction, and search and rescue. With upgrades, Space Corps anticipates maintaining the Corvette fleet into the 2070s and beyond.

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The Corvette Class takes the classic model rocket design and cranks it up to "very cool!" This Intermediate-Level kit is a straightforward build that's loaded with great details, and it's no slouch on the pad, either. Look out for amazing flights using the recommended Estes B and C engines.

Product Number: 7281 Height: 25 in. (63.5 cm) Diameter: 1.33 in. (19 mm) Recovery: Parachute Projected Altitude: 650 ft. (198 m) Recommended Engines: B4-4, B6-4, C5-3, C6-3, C6-5

MSRP \$26.99

JPACE CORPJ

Mission: Exploration, survey Complement: Robotic Al Propulsion: Ion reaction (1st gen) First Flight: 2026

Operational Notes: This adaptable probe led the way for the return to the moon by mapping large sections of the lunar surface and performing remote approach and landing tests. Space Corp later reconfigured the Lunar Scout to explore Mars and its moons.

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This Intermediate-level kit features laser-cut cardstock parts and detailed water-slide decals for added realism. With flights up to 200 feet and lightweight recovery, the Lunar Scout is a great small field launcher.

Product Number: 7290 Height: 4 in. (10.2 cm) Diameter: 0.74 in. (19 mm) Recovery: Featherweight Projected Altitude: 200 ft. (61 m) Recommended Engines: 1/2 A3-2T, A3-2T, A3-4T, A10-0T, A10-3T

MSRP \$11.99





SCALE MODEL ROCKETS



THE MOST ANTICIPATED MODEL ROCKET OF THE YEAR



Estes is a scale modeler's dream that brings together both the hobby of model rocketry and history. For over 65 years, Estes has produced the finest scale replicas of rockets and missiles.

19 CREW DRAGON シロイロシ FALCON 9 x ×

Estes is pleased to present this licensed, flying reproduction of the Falcon 9 rocket and Crew Dragon Spacecraft. Fully assembled and ready to fly or display straight from the box, you will enjoy the accuracy of this 1:100 scale model of the groundbreaking launch vehicle. The rocket includes clear plastic fins for stability, looks great in flight, and on its custom display stand.

- Highly Detailed 1:100 Scale
 Falcon 9 & Crew Dragon Spacecraft
- Collectors Edition High End Custom Packaging
- Estimated Max Altitude: 300 ft.

Learn More



44 EstesRockets.com

BLUE ORIGIN SHEPARD

ESTES, BLUE ORIGIN, AND CLUB FOR THE FUTURE

We are providing a piece of history that inspires kids to dream of a future filled with the wonders of space exploration; that's why a portion of every dollar from the Estes New Shepard will go to support Club for the Future, Blue Origin's foundation that inspires future generations to pursue careers in STEM, and why Estes is proud to partner with them.

THE NEW SHEPARD

In 1961, Alan Shepard made history as the first American in space. A decade later, he walked on the moon and pushed the boundaries of space exploration so that we can reach for the planets beyond. From this legacy, Blue Origin furthers our dreams of reaching new frontiers with the New Shepard rocket.

Builder Kit

• Launches Up to 700 ft. • Larger Fins for Added Stability! • Fun to Build!

Ready to Fly

- 1/66th Scale Model • Payload Capable
- Custom Display Stand

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Product Number: 7315 Length: 11.8 in. (30 cm) Diameter: 1.64 in. (42 mm) **Recovery: Parachute** Projected Altitude: 700 ft. (213 m) **Recommended Engines:** B4-4, B6-4, C6-5





Product Number: 2198 Length: 10.3 in. (26.3 cm) Diameter: 1.78 in. (45 mm) **Recovery: Parachute** Projected Altitude: 400 ft. (122 m) **Recommended Engines:** C5-3, C6-3 **MSRP \$69.99**



This category features detailed, miniature replicas of full-scale military, commercial, and space agency rockets, which come in a variety of scale sizes and model rocket engine requirements.

Scale model rockets come in a variety of skill ranges that vary from ready to fly Beginner rockets to Master level build kits. RTF (or ready to fly) rockets are great for home or office display and are also easily prepared for flight. Intermediate skill builds are for those who want to get hands on with a scale model that requires building, painting, and applying decals as they grow their rocketry building knowledge in preparation for more complex kits.

Advanced, Expert, and Master level kits require an advanced knowledge of model rocket building as hobbyist work with handcrafted or molded detailed parts. These rockets often require rocketeers to have mastered a variety of skills in assembly, painting and launching techniques in order to successfully complete these exciting rockets.



The Estes 1:200 scale replica of this rocket portrays the Project Artemis Block 1 configuration, the first in the proposed series of heavy lift launch vehicles. Pre-assembled, pre-finished, and ready to launch, this highly detailed model realistically reproduces the features and markings of America's next generation rocket for deep space missions.

The NASA SLS Comes Almost Ready-to-Fly Out of the Box!



Model features clear plastic fins to stabilize flights and can be used for display!

NASA SLS

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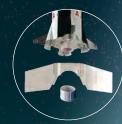
Product Number: 2206 Length: 19.4 in. (49.3 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 350 ft. (107 m) Recommended Engines: C5-3, C6-3

° \$76.99

The Estes commemorative 1:200 scale Apollo II Saturn V model is almost 2 feet tall and comes fully assembled with many scale details and markings carefully reproduced for exceptional realism. This historical model of the Saturn V is suitable for display or launch.

The Saturn V Comes Almost Ready-to-Fly Out of the Box!





Model features a clear plastic fin unit to stabilize flights and a custom display stand!

50th Anniversary Saturn V

:200 S

Product Number: 2160 Length: 21.8 in. (55.4 cm) Diameter: 1.98 in. (50 mm) Recovery: Parachute Projected Altitude: 200 ft. (61 m) Recommended Engines: C5-3, C6-3

MSRP \$76.99



The MIM-104 Patriot is a surface-to-air missile (SAM) system, the primary of its kind used by the United States Army and several allied states. The AN/MPQ-53 at the heart of the system is known as the "Phased Array Tracking Radar to Intercept on Target" which is a backronym for PATRIOT.

U.S. Army Patriot M-104 1:10 Scale

Product Number: 2056 Length: 21.3 in. (54.1 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-4, B6-4, B6-6, C6-5 MSRP \$20.99



Check out this mini-engine powered version of the U.S. Army's Honest John. The Estes Mini Honest John is a sport scale model, featuring a molded plastic nose cone and balsa fins that's quick to build and fun to fly!

Mini Honest John

1:24 Scale

Product Number: 2446 Length: 11.75 in. (29.8 cm) Diameter: 0.98 in. (25 mm) Recovery: Parachute Projected Altitude: 325 ft. (99 m) Recommended Engines: 1/2 A3-2T, A3-4T, A10-3T

MSRP \$13.99



An iconic weapon of the Cold War, the MGR-1 Honest John battlefield rocket could carry nuclear or conventional warheads. sounding rockets is one of the most successful launch vehicles ever flown. Since the late 1950s, several hundred Black Brant rockets have completed research missions for Canada and NASA. Black Brant II 1:13 Scale Deduct Number 7242

Product Number: 7243 Length: 24.9 in. (63.2 cm) Diameter: 1.33 in. (34 mm) Recovery: Parachute Projected Altitude: 1300 ft. (396 m) Recommended Engines: C11-3, D12-5, D12-7

The Canadian Black Brant line of

Requires (Sold Separately): 3/16 in. Maxi[™] Launch Rod See Page: 75

MSRP \$25.99

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The Estes Bull Pup 12D is based off of the AGM-12 Bullpup, which is a short-range air-to-ground missile developed by Martin Marietta for the U.S. Navy in 1959. It was among the earliest precision guided air-to-ground weapons and the first to be mass produced for the U.S. Navy and U.S. Airforce.

Bull Pup 12D

1:9 Scale

Product Number: 7000 Length: 15.6 in. (39.6 cm) Diameter: 1.33 in. (34 mm) Recovery: Parachute Projected Altitude: 675 ft. (206 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5

MSRP \$22.99

50 EstesRockets.com

920100001-19 CENTER SECTION SEFAL NO. AS - 3 ASSEMBLED WITH EXPLOSIVE LOA

.S. AIR FORCE

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X - C.G. LOADED NEIGHT 129 LBS.

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Mercury-Redstone 4 was the second U.S. human spaceflight, on July 21, 1961. The suborbital Project Mercury flight was launched with a Mercury-Redstone Launch Vehicle, MRLV-8. The spacecraft, Mercury capsule #11, was nicknamed Liberty Bell 7. It was piloted by astronaut Virgil "Gus" Grissom.

Mercury Redstone 4 Liberty Bell 7

1:34 Scale

Product Number: 1921 Length: 28.6 in. (72.6 cm) Diameter: 2.05 in. (52 mm) Recovery: Parachute Projected Altitude: 200 ft. (61 m) Recommended Engines: C5-3, C6-3 MSRP \$29.99





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UN-TED STATES

The Estes Saturn 1B is a stunning 1:100 recreation of this rocket of the Apollo era. Designed to test Apollo hardware, it later served as crew launch vehicle for Skylab and the Apollo Soyuz Test Project. Build and launch this Master-Level kit for spectacular lift-offs and dazzling dual parachute recoveries.

(11)

Saturn 1B

1:100 Scale

Product Number: 7251 Length: 26.8 in. (68.1 cm) Diameter: 2.62 in. (67 mm) Recovery: Parachute x2 15 in., 18 in. Projected Altitude: 1000 ft. (305 m) Recommended Engines: C11-3, D12-3, E12-4, E12-6

MSRP \$76.99

In 1973, the last Saturn V was launched with a special payload – Skylab, America's first space station. Build and fly a 1/100 scale replica of that historic mission. Exciting launches up to 350 feet on an Estes F15-4 engine, and spectacular three-parachute recoveries.

Saturn Skylab

1:100 Scale

Product Number: 1973 Length: 41.25 in. (104.8 cm) Diameter: 3.94 in. (100 mm) Recovery: Parachute x3 (18 in. x 1, 24 in. x 2) Projected Altitude: 400 ft. (122 m) Recommended Engines: E16-4, F15-4

MSRP \$109.99

Note: Not to Scale Shown for display purposes only.



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SATURN SKYLAB

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POWERED BY OUR LARGEST ENGINES!

Estes Pro Series II products are bigger and better than ever, giving you all the power you need to reach towering heights! Experience the awesome power of rockets that fly on our 29 mm engines!

IMPORTANT INFORMATION

Estes Pro Series II can be enjoyed by adult flyers of all skill levels. Kits in this catagory range from Beginner to Expert. Beginner & Intermediate kits may still require some building knowledge with plastic molded parts and the use of epoxy glues. Advanced and Expert kits should only be attempted by hobbyist with the acquired skills for kits of this type.

LAUNCH INFORMATION

In order to launch your Pro Series II rocket, you will need a launch controller with 30 feet of wire, such as our 2240 Pro Series II Launch Controller. In addition to the launch controller, you will need a sturdy launch pad with a ¼" (6.4 mm) launch rod, or you can purchase our 3552 Estes Pro Series II Launch Pad. *See Page 59*



Estes Pro Series II rocket kits are for adult rocketeers. Anyone under the age of 18 using these products should be supervised by an adult at all times.

AVAILABLE EARLY 2023!

PROSERIESI

So Long[™] Product Number: 9722 Length: 46.2 in. (118 cm) Diameter: 1.21 in. (31 mm) Recovery: Streamer Projected Altitude: 3600 ft. (1097 m) Recommended Engines: Rocket Only: E-16-6, E16-8, F15-6, F15-8 Two Stages: Rocket: E16-8, F15-8 Booster: E16-0, F15-0

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MSRP \$39.99

The So Long will be the highest flying two-stage rocket that we have ever produced!

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EXCITING NEW ADDITIONS TO THE PRO SERIES II FAMILY COMING LATER THIS YEAR!

The Black Brant XII is a four-stage, solid propellant sounding rocket consisting of a Talos 1st stage, Taurus 2nd stage, Black Brant 3rd stage, and Nihka 4th stage. The actual vehicle is capable of lifting 1000 lbs to a 500 km altitude or 250 lbs to approximately 1400 km. Originally Built by Bristol Aerospace, the Black Brant family continues to be one of the most popular sounding rockets of all time.

PROSERIESI

Black Brant XII

1:14 Scale

Product Number: 9723 Length: 54.6 in. (139 cm) Diameter: 2.22 in. (56 mm) Recovery: Nylon Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: E16-6, F15-6





PROSERIESII

Great Goblin™

Product Number: 9724 Length: 33.5 in. (85 cm) Diameter: 3 in. (76 mm) Recovery: Nylon Parachute Projected Altitude: 880 ft. (268 m) Recommended Engines: E15-4, F15-6

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PROSERIES II

POWERED BY OUR LARGEST ENGINES!

PROSERIESI

Super Big Bertha[™]

Product Number: 9719 Length: 36.8 in. (93.5 cm) Diameter: 2.6 in. (66 mm) Recovery: Parachute Projected Altitude: 1200 ft. (366 m) Recommended Engines: E16-4, F15-6 Sold Separately: D12-3, E12-4 w/ Engine Adapter

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MSRP \$43.99

PROSERIESII Doorknob

1:5.3 Scale

MSRP \$43.99

Length: 26.9 in. (68.3 cm) Diameter: 3 in. (76 mm) Recovery: Nylon Parachute **Recommended Engines:** E16-4, F15-4, F15-6 Sold Separately: D12-3, E12-4 w/ Engine Adapter

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Product Number: 9720

Projected Altitude: 1100 ft. (335 m)

The Doorknob was a sounding rocket manufactured by Lacrosse Rocket Motors for the project Hardtack

Nuclear Test Series.



PROSERIESI Star Orbiter[™]

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Product Number: 9716 Length: 45.2 in. (114.8 cm) Diameter: 1.64 in. (42 mm) Recovery: Parachute Projected Altitude: 1800 ft. (549 m) **Recommended Engines:** E16-6, F15-8 Sold Separately: D12-3, E12-4 w/ Engine Adapter







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Majestic™ Projected Altitude: 1300 ft. (610 m) Sold Separately: D12-3, E12-4 w/ Engine Adapter

Product Number: 9707 Length: 35.3 in. (89.7 cm) Diameter: 2 in. (51 mm) Recovery: Nylon Parachute Recommended Engines: E16-6, F15-6, F15-8

PROSERIESI

MSRP \$53.99

Fly it as a two stage using the E2X Booster accessory! See pg. 58



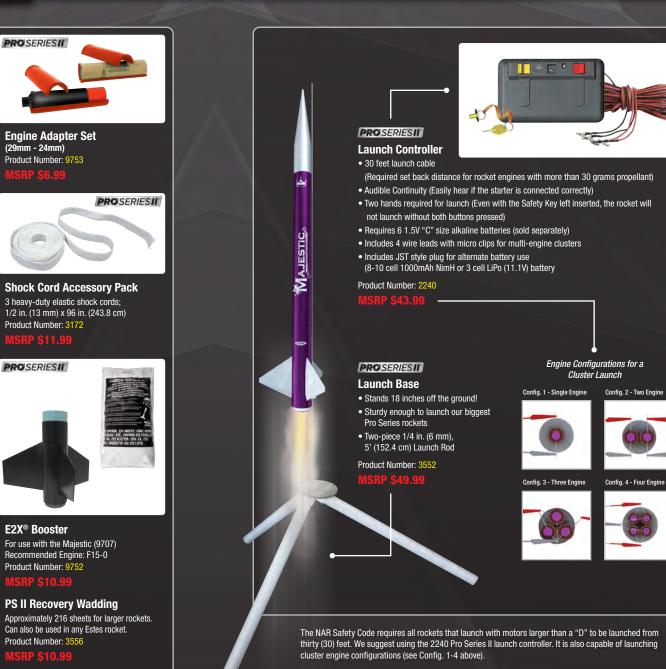
56 EstesRockets.com

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PRØ SERIES II

BIG ROCKETS WITH BIG RCCESSORIES!



PROSERIESII

Der Big Red Max[™]

Product Number: 9721 Length: 29.9 in. (75.9 cm) Diameter: 3 in. (76 mm) Recovery: Skull & Bones Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: E16-4, F15-4

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MSRP \$54.99

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