

CATALOG 2021

FULL PRODUCT LINEUP FROM THE WORLD LEADER IN MODEL ROCKETRY

TO THE EXCITING WORLD OF MODEL ROCKETRY

Now this is rocket science!

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 on its recovery system. In a very real sense, model rocketeers experience the same excitement felt by America's space scientists and astronauts as they push humankind's horizons relentlessly forward to the stars. The best way to get started is

EstesRockets.com

with an Estes[®] launch set or starter set (see pages 10-15). 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 hobby beginner or expert, Estes Industries will help you advance higher, further and faster in your adventures.

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Estes encourages membership in the NATIONAL ASSOCIATION OF ROCKETRY https://www.nar.org



Our Vision:

To be the best model rocket company on the planet...

Our Mission:

To work relentlessly to create exceptional customer experiences. Everything we do is designed to ignite passion for creativity, exploration, and innovation.

Our Values:

Our safety record: Over 60 years and over 500 million launches.

Our uniqueness:

In a growing digital world, little compares to the experience of building and launching a model rocket.

Our desire to teach:

We recognize the value of model rocketry as an educational tool.

Our employees:

Many of our current employees have been on this journey with us for decades!

4 EstesRockets.com

Model Rocket Basics

Welcome to Estes Industries and the Exciting World of Model Rocketry!

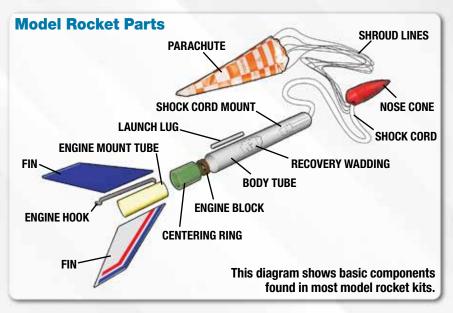
Since its creation by Vern and Gleda Estes 63 years ago, our company has made possible over 500 million rocket launches — with an amazing safety record.



Vern and Gleda Estes Founders of Estes Rockets

What is a Flying Model Rocket?

Estes[®] flying model rockets are activity kits designed of lightweight materials such as paper tubing, balsa wood and plastic. Fins attached to the body tube help provide guidance and stability. An engine mount assembly holds the engine in place during rocket flight in most models.



How Does a Model Rocket Work?

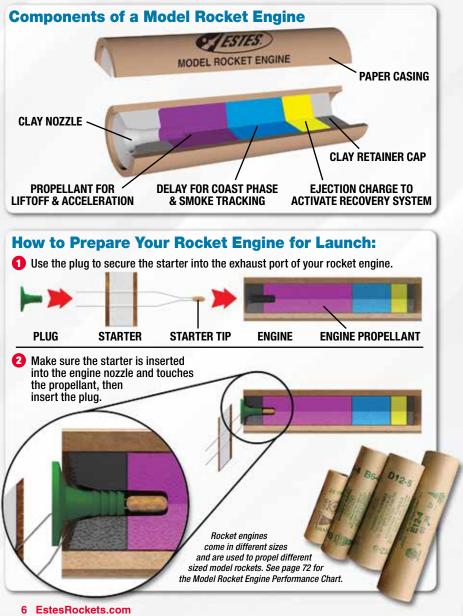
The Estes model rocket is propelled into the air by an electrically ignited model rocket engine. After its acceleration, the rocket continues upward emitting tracking smoke as it coasts. At the rocket's peak altitude (also called apogee), a recovery device, such as a parachute or streamer, is deployed to return the rocket gently to earth. The rocket can then be prepared for another flight.

Model rocketry is recommended for ages 10 to adult. Adult supervision is suggested for those under 12 years of age.

What is a Model Rocket Engine?

Estes[®] model rocket engines are used to thrust a model rocket into the air. They are Midde af Esties Industries. LLC. Pennase, CO 812240 USA EstiesRockets.com MODEL ROCKET ENGINE/MOTOR NA 0323, 1.45, Single Stape Certified

factory-assembled and comply with the safety requirements of the National Association of Rocketry. They are single use and range in power from A to F sizes. The engine is started using an electrical launch system that is powered by alkaline batteries.



How Does a Model Rocket Engine Work?

- When the engine is started, it produces thrust and boosts the rocket into the sky.
- 2 After the propellant is used up, the delay is activated, producing tracking smoke and allowing the rocket to coast.
- After the delay is used, the ejection charge is activated, which deploys the recovery system, such as a parachute or streamer.

Model Rocket Engine Phases and Flight Sequence

ENGINE PHASE: COAST Model rocket streaks skyward to peak altitude during coast phase.

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2 ENGINE PHASE: THRUST High thrust and acceleration for powered flight.

> 6 LANDING Touchdown and safe recovery... ready to blast off again!

1 ENGINE PHASE: LIFTOFF! Safe electric ignition from launch pad.

> Thanks to the recovery system, you can enjoy the thrill of launching Estes rockets over and over! Every launch, however, requires a new engine as engines can only be used once.

Where to Launch Model Rockets

The chart below tells you what size field to use for each size engine. For launch information, look at the "NAR Model Rocket Safety Code". You should always check with your local city government for any special regulations that may apply to your area. Generally speaking, you can fly most Estes® model rockets in a clear area the size of a football field or soccer field. Launch in little or no wind, and make sure there is no dry grass close to the launch pad or in the flying field. Each engine size is designated by a letter and is up to twice as powerful as the letter before it. See the engine section (pages 70-73) of this catalog for more information.

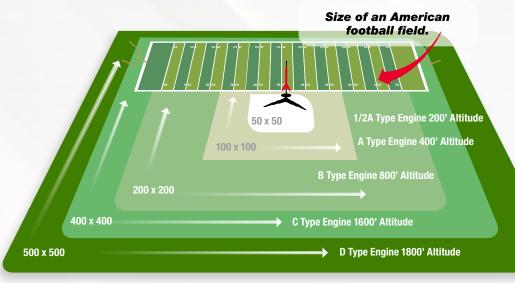


LAUNCH SITE DIMENSIONS

Installed Total Impulse (N-sec)	Equivalent Motor Type	Minimum Site Dimensions (ft.)
0.00 - 1.25	1/4A, 1/2 A	50 x 50
1.26 - 2.50	A	100 x 100
251 - 5.00	В	200 x 200
5.01 - 10.00	С	400 x 400
10.01 - 20.00	D	500 x 500
20.01 - 40.00	E	1000 x 1000
40.01 - 80.00	F	1000 x 1000

Recommended Launch Area

Minimum launch site dimension for circular area is diameter in feet, and for rectangular area is shortest side in feet. Choose a large field away from power lines, buildings, tall trees and low flying aircraft. The larger the launch area, the better your chance of recovering your rocket. Football fields, parks and playgrounds are great. This diagram shows the smallest recommended launch areas.



- Make sure the launch area is free of obstructions, dry weeds, brown grass or highly flammable materials.
- Launch only during calm weather with little or no wind and good visibility.

Where to Find Details About a Rocket Kit in the Catalog

You will find a list of information next to each rocket throughout the catalog.

Example of a Rocket Kit Description

7307 DARC-1[™] Length: 9.3 in. (23.6 cm) Diameter: 4.2 in (106.7 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 400 ft. (122 m) Recommended Engines: B6-2, C5-3, C6-3 MSRP - \$29.99



The DARC-1[™] is an Expert model rocket.

BUILDING CLASSIFICATIONS

All model rocket kits in this catalog require assembly unless otherwise indicated. Building classifications are designated by a letter given to each kit.



Estes Starter Sets

Start Your Estes Experience Here!

Starter Sets come equipped with everything you need to launch a model rocket. Multiple model rocket engines, one launch pad, one launch controller, required flight supplies and one flying model rocket. For additional launches, you will need to purchase additional Estes® Engines and flight supplies. Launch controllers require batteries (sold separately).

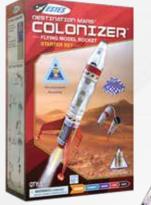




5325 AstroCam® Starter Set Length: 20 in. (50.8 cm) Diameter: 0.98 in. (25 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 900 ft. (274 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5 **MSRP - \$79.99** Insert HD Camera into Nose Cone!







5322 Colonizer[™] Starter Set

Length: 12.7 in. (32.3 cm) Diameter: 1.64 (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 250 ft. (76 m) Recommended Engines: C5-3, C6-3 MSRP - \$49.99



5302 Rocket Science[™] Starter Set

Length: 12.6 in. (32 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: 1/2A6-2, A8-3, B4-4, B6-4, B6-6, C6-5, C6-7 MSRP - \$39.99



Here's what's in the box:

One or two Estes[®] model rockets (either in kit form or almost ready to fly), one each Estes[®] Electron Beam[®] Launch Controller and 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, starters and recovery wadding, tools, construction and finishing supplies for the rockets and 4 new AA 1.5V alkaline batteries for the launch controller sold separately.





LAUNGH SETS

Get excited with an Estes® Launch Set

The easiest entry point into the fun and exciting world of Estes model rocketry is to purchase an Estes Launch Set. Each launch set contains a rocket (or two) and a complete, high-tech Estes launch system. In addition to the fun of building, launching and recovering your own model rocket, Estes flying model rockets have significant STEM educational value. STEM stands for science, technology, engineering and math, and model rocketry utilizes all four disciplines. So rocketeers often become scientists and engineers.

1491 Taser[™] Launch Set

Length: 17 in. (43.2 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, B6-6, C6-5, C6-7 MSRP - \$28,99



The Taser[™] & Alpha III[®] Launch Sets are Estes Best Sellers!

1427 Alpha III® Launch Set

Length: 12.3 in. (31.2 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

MSRP - \$35.99



1403 Riptide[™] Launch Set

Length: 18 in. (45.7 cm) Diameter: 1.35 in. (34 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 675 ft. (206 m) Recommended Engines: B4-4, B6-4, C6-5 **MSRP - \$37.99**



No Assembly Required!

1478 Flash[®]! Launch Set

Length: 16.2 in. (41.1 cm) Diameter: 1.1 in. (28 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 925 ft. (282 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7

MSRP - \$28.99

1441 Journey[™] Launch Set

Length: 19.3 in. (49 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7

MSRP - \$32.99



1469 Tandem-X[™] Launch Set (Amazon[™] and Crossfire[™] ISX) MSRP - \$35.99

Amazon™

Length: 29.4 in. (74.7 cm) Diameter: 1.33 in. (34 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-2, B4-4, B6-2, B6-4, C5-3, C6-3, C6-5

1499 Rascal[™] & HiJinks[™] Launch Set MSRP - \$35.99

Rascal[™]

Length: 14.5 in. (36.8 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T



No Assembly Required!

2 ROCKETS IN 1 PACKAGE!

HiJinks™

Length: 14.5 in. (36.8 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T



Crossfire[™] ISX

Length: 15.6 in. (39.6 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7

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NEW!

0886 Gnome[™]

Length: 10.3 in. (26.2 cm) Diameter: 0.54 in. (14 mm) Recovery: 12 in. (30.5 cm) Streamer Projected Altitude: 800 ft. (244 m) Recommended Engines: 1/4A3-3T, 1/2A3-2T, 1/2A3-4T, A3-4T, A10-3T **MSRP - \$9.99**





Snap Together -No Glue Required!

7299 Illusion[™]

Length: 19.3 in. (49 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1125 ft. (343 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7



Also a Bulk Pack! pg. 93

1256 Alpha III®

The high-flying Alpha III is another model rocketry classic! The iconic orange and black space model is easy to build and fun to fly! Length: 12.3 in. (31.2 cm) Diameter: 0.98 in. (25 mm) Recovery:

12 in. (30.5 cm) Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

MSRP - \$21.99



2452 Athena™

Length: 17 in. (43.2 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1125 ft. (343 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5



No Assembly Required!



2603 Sundancer[™]

Length: 16.5 in. (41.9 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, B6-6, C6-5, C6-7

MSRP - \$13.99



2008 Generic E2X®

Length: 13.5 in. (34.3 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1325 ft. (404 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T MSRP - \$12,99





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7303 Star Hopper[™]

Based on 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. Features detail-molded plastic parts, atomic-age styling, and a 18-inch streamer for recovery.

Also a

pg. 9'

Length: 7.4 in. (18.8 cm) Diameter: 0.74 in. (19 mm) Recovery: 18 in. (45.7 cm) Streamer Projected Altitude: 400 ft. (122 m) **Recommended Engines:** Bulk Pack 1/2A3-4T, A3-4T, A10-3T

MSRP - \$13.99

Snap **Together** -No Glue **Reauired!**

2495 Chiller[™]

Length: 19.4 in. (49.3 cm) Diameter: 1.33 in. (34 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 600 ft. (183 m) **Recommended Engines:** B4-2, B6-2, B6-4, C5-3, C6-3, C6-5 MSRP - \$18.99

0806 Firestreak SST[™]

Length: 10.2 in. (25.9 cm) Diameter: 0.86 in. (22 mm) Recovery: 12 in. (30.5 cm) Streamer Projected Altitude: 350 ft. (107 m) Recommended Engines: 1/2A3-2T, 1/2A3-4T, A3-4T, A10-3T MSRP - \$10.99



Snap Together, No Glue **Reauired!**

Also a Bulk Pack

18 EstesRockets.com

2435 3 Bandits™

This trio of rockets comes in festive colors and with varied fin units. Length: 10.8-11.1 in. (27.4-28.2 cm) Diameter: 0.74 in. (19 mm) Recovery: 6 in. (15.2 cm) Parachute Projected Altitude: 550 ft. (168 m) Recommended Engines: 1/2A3-4T, A3-4T, A10-3T MSRP - \$23.99

2483 Phantom Blue™

Rocket Set!

Length: 19.4 in. (49.3 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 MSRP - \$18.99



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7292 Terra GLM[™]

Length: 17.8 in. (45.2 cm) Diameter: 1.1 in. (28 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 875 ft. (267 m) Recommended Engines: B4-4, B6-4, C6-5 **MSRP - \$19.99**



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0803 Bandito[™]

Length: 11.2 in. (28.4 cm) Diameter: 0.74 in. (19 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: 1/4A3-3T, 1/2A3-2T, A3-4T, A10-3T MSRP - \$10.99

2492 Spirit[™]

Length: 21 in. (53.3 cm) Diameter: 1.33 in. (34 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-2, B4-4, B6-2, B6-4, C5-3, C6-3

MSRP - \$17.99

2169 Dragonite[™]

Length: 16 in. (40.6 cm) Diameter: 1.1 in. (28 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1125 ft. (343 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7





FLYIN' HIGH AGAIN! ASTRACAAAA IS BACAAA COME ALONG FOR THE RIDE!

NEW

LOAD

OTY: 1



ESTE

10.9

7308 AstroCam® Length: 20 in. (50.8 cm) Diameter: 0.98 in. (25 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 900 ft. (274 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5 **MSRP - \$49.99**



Seelt!

Hearth

Challenge Yourself a Little Bit More! These Rockets Take More Time to Build.

NEW

7306 Xtreme[™]

Length: 16.8 in. (42.7 cm) Diameter: 0.74 in. (19 mm) Recovery: 24 in. (61 cm) Mylar Streamer **Projected Altitude:** 1600 ft. (488 m) **Recommended Engines:** 1/2A6-2, A8-3, A8-5, B4-4, B6-6, C6-5, C6-7 MSRP - \$14.99



1261 Baby Bertha[™]

Length: 12.8 in. (32.5 cm) Diameter: 1.64 in. (42 mm) **Recovery:** 12 in. (30.5 cm) Parachute Projected Altitude: 575 ft. (175 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5

MSRP - \$14.99



2442 Mini Fat Boy™

Length: 8.5 in. (21.6 cm) Diameter: 1.64 in. (42 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 250 ft. (76 m) Recommended Engines: A10-3T MSRP - \$13.99

7244 Indicator™

Length: 21.2 in. (53.8 cm) Diameter: 0.98 in. (25 mm) Recovery: 9 in. (22.9 cm) Parachute Projected Altitude: 200 ft. (61 m) Recommended Engines: A3-4T, A10-3T MSRP - \$16.99





1225 Alpha®

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Length: 12.3 in. (31.2 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1000 ft. (305 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T MSRP - \$18,99

Also a Bulk Pack! pg. 95

2178 Hi-Flier®

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Length: 12 in. (30.5 cm) Diameter: 0.74 in. (19 mm) Recovery: 12 in. (30.5 cm) Streamer Projected Altitude: 1500 ft. (457 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T MSRP - \$11,99



0810 220 Swift[™] Length: 4.5 in. (11.4 cm)

MSRP - \$9.99

Diameter: 0.54 in. (14 mm) Recovery: Featherweight Projected Altitude: 850 ft. (259 m)

Recommended Engines: 1/4A3-3T, 1/2A3-2T, 1/2A3-4T, A3-4T, A10-3T



The 220 Swift[™] is lightweight and gently flutters to the ground without a parachute. During the ejection phase, the engine pops out. Insert another and you're ready to launch again!

7220 Crossfire[™] ISX

Length: 15.6 in. (39.6 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1150 ft. (351 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 MSRP - \$13.99



1345 Mosquito[™]

Length: 3.8 in. (9.7 cm) Diameter: 0.54 in. (14 mm) Recovery: Featherweight Projected Altitude: 800 ft. (244 m) Recommended Engines: 1/4A3-3T, 1/2A3-2T, 1/2A3-4T, A3-4T, A10-3T MSRP - \$6.99

0651 Der Red Max[™]

Length: 16.3 in. (41.4 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-5 MSRP - \$19.99





2021 Cadet[™]

Length: 17.5 in. (44.5 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-7 MSRP - \$14.99

Also a Bulk Pack! pg. 94

1292 Wizard[™]

Length: 12 in. (30.5 cm) Diameter: 0.74 in. (19 mm) Recovery: 18 in. (45.7 cm) Streamer Projected Altitude: 1600 ft. (488 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T **MSRP - \$13,99**



1381 Yankee[™]

Length: 11 in. (27.9 cm) Diameter: 0.74 in. (19 mm) Recovery: 18 in. (45.7 cm) Streamer Projected Altitude: 1700 ft. (518 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T

MSRP - \$13.99



0652 Citation Patriot[™]

Length: 25.6 in. (65 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-2, B6-2, B6-4, C6-5

MSRP - \$26.99

1948 Big Bertha®

Length: 24 in. (61 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 500 ft. (152 m) Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-5 MSRP - \$26.99



7259 Nike-X

Length: 23.4 in. (59.4 cm) Diameter: 1.33 in. (34 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5 MSRP - \$21.99



1949 Viking[™]

Length: 12.1 in. (30.7 cm) Diameter: 0.74 in. (19 mm) Recovery: 18 in. (45.7 cm) Streamer Projected Altitude: 1600 ft. (488 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 w/Engine Adapter (sold separately) - A10-3T MSRP - \$13.99

The Viking has 48 various fin configurations to choose from:

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!

Also a Bulk Pack! pg. 93 7237 Goblin™ Length: 14.4 in. (36.6 cm) Diameter: 1.33 in. (34 mm) Recovery: 2 x 36 in. (91.3 cm) Streamers Projected Altitude: 1400 ft. (427 m) Recommended Engines: C11-3, C11-5, D12-5, D12-7

MSRP - \$19.99

Twist the 2 halves of the 1295 Mean Machine body tube in opposite directions and then pull apart.

> The Mean Machine stands at over 6 feet tall and disassembles in the middle.

It's so Tall -We Had to Split it in Half for Easy Transport and Storage!

Mean Machine Sizes



Mean Machine & Mini Mean Machine

0865 Mini Mean Machine™ Length: 39 in. (99.1 cm) Diameter: 0.74 in. (19 mm) Recovery: 9 in. (22.9 cm) Parachute Projected Altitude: 225 ft. (69 m) Recommended Engines: A3-4T, A10-3T MSRP - \$14.99



1295 Mean Machine[™]

Length: 79 in. (200.7 cm) Diameter: 1.64 in. (42 mm) Recovery: 24 in. (61 cm) Parachute Projected Altitude: 700 ft. (213 m) Recommended Engines: D12-3, D12-5, E12-4, E12-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod PN 2244; sold separately.

MSRP - \$32.99



7287 Sidekick[™]

The only cluster rocket in the Estes® fleet. Experience side-by-side engine thrust and a dual deployment streamer recovery! Requires Estes® PS II™ Launch Controller Length: 21.1 in. (53.6 cm) Diameter: 1.8 in. (46 mm) X 2 Recovery: 2 x 36 in. (91.4 cm) Mylar streamers Projected Altitude: 700 ft. (213 m) Recommended Engines: Two B4-2, or two B6-4

MSRP - \$19.99



The Sidekick™ Comes Equipped with Dual Engine Mounts!

7000 Bull Pup 12D 1:9 Scale

Length: 15.6 in. (39.6 cm) Diameter: 1.33 in. (34 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 675 ft. (206 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5 MSRP - \$20.99





7257 Airborne Surveillance Missile™

Length: 11.3 in. (28.7 cm) Diameter: 0.98 in. (25 mm) Recovery: 9 in. (22.9 cm) Parachute Projected Altitude: 375 ft. (114 m) Recommended Engines: A3-4T, A10-3T

MSRP - \$16.99



7289 Low-Boom SST[™]

Based on current research into aerodynamics to reduce the effect of breaking the sound barrier. Long and sleek with the same wing profile found on research aircraft making headlines today. Will you be able to hear the "Boom" when flying yours? Length: 30 in. (76.2 cm) Diameter: 1.33 in. (34 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 400 ft. (122 m) Recommended Engines: C5-3, C6-3



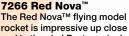
7263 Hex-3™

Length: 3.2 in. (8.1 cm) Diameter: 3.8 in. (97 mm) Recovery: Featherweight Projected Altitude: 100 ft. (30 m) Recommended Engines: B6-0, C6-0 MSRP - \$8.99



7239 Sky Warrior™

Length: 19 in. (48.3 cm) Diameter: 1.33 in. (34 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 850 ft. (259 m) **Recommended Engines:** B4-4, B6-4, C6-5 MSRP - \$20.99



The Red Nova[™] flying model

and in the sky! Features include a unique nose cone and great waterslide decals. Length: 21.6 in. (54.9 cm) Diameter: 1.64 in. (42 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 800 ft. (244 m) **Recommended Engines:** C11-3, D12-5, D12-7 w/Engine Adapter (sold separately) - C5-3. C6-3 Requires 3/16 in. (5 mm) Maxi™ Launch Rod PN 2244; sold separately.

MSRP - \$21.99

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Watching a model rocket that you've crafted zip off the pad and into the sky is super fun, but it is also always an educational experience! Because all Estes® model rockets are uniquely suited for teaching science, technology, engineering, and math, they are frequently used in students' science fair projects. But which are the best model rockets for science experiments? Payloaders, of course!

What is a payload? A payload is the cargo that a model rocket carries into the atmosphere. Payloads can be grasshoppers, raw eggs, or scientific measurement devices, such as altimeters that measure the altitude rockets achieve in flight.

The best thing about Estes payloader rockets is that they are designed with clear payload sections so that you can see the cargo you're launching. The possibilities are endless! A Payload Section is a Feature that Allows the Rocketeer to Launch Cargo!

> Measure Your Rocket's Altitude with the Estes Altimeter, pg. 85

7261 Air Walker™ Length: 21.7 in. (55.1 cm) Diameter: 1.1 in. (28 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 950 ft. (290 m) Recommended Engines: B4-4, B6-4, C6-5 MSRP - \$18.99

AIRWALKER



Place an Egg in the Rocket Payload Section!

With a Rocket Payload Section, You Can Launch Eggs, Insects and Altimeters Into the Sky!



7301 Green Eggs™

Length: 23.6 in. (59.9 cm) Diameter: 1.8 in. (46 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude w/egg: 825 ft. (251 m) Projected Altitude wo/egg: 1050 ft. (320 m) Recommended Engines: w/egg: C11-3, D12-3 w/out egg: C11-5, D12-5 MSRP - \$21.99



7300 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! Length: 23 in. (58.4 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7 MSRP - \$19.99



7248 Supernova

Length: 27.5 in. (69.9 cm) Diameter: 0.98 in. (25 mm) Recovery: 9 in. (22.9 cm) Parachute; Tumble Projected Altitude: 1550 ft. (472 m) Recommended Engines: Rocket Only: A8-5, B4-4, B6-4, C6-5, C6-7 Two Stages: Rocket: A8-5, B6-6, C6-7 Booster: B6-0, C6-0 MSRP - \$22.99



Hurl an Egg at the High Heavens



7265 Space Crater™ Length: 18.5 in. (47 cm) Diameter: 0.98 in. (25 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 650 ft. (198 m)

Recommended Engines: With egg: C5-3, C6-3 Without egg: B4-4, B6-4, C6-5 MSRP - \$22.99





After assembling your Space Crater rocket nose cone, insert an egg into the payload section and prepare for liftoff. But be sure to prepare the parachute recovery system correctly, or you may end up with an egg-citing mess to clean up!

Welcome to the Exciting World of **Multi-Stage Rockets**

Many full-size rockets that leave Earth's atmosphere are multistaged 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 and each subsequent stage is used to increase velocity to escape Earth's gravitational pull and reach Low Earth Orbit (LEO is 99 to 1200 miles). Estes® multi-stage rockets will not get to LEO, but they are designed to increase a model 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 secondstage 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 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 rockets are challenging and exciting to launch. Recovering a small three stage rocket on a streamer from over 2500 feet altitude can be a task!



STAGE 1

MULTI-STAGE ROCKET FLIGHT SEQUENCE **Rockets Fly!** EJECTION CTREAMER RECON COAST PHASE BOOSTER SEPARATES STAGE 3 AND TUMBLES THIRD STAGE, **ROCKET ENGINE IGNITES** BOOSTER **SEPARATES** AND TUMBLES SECOND STAGE. **BOOSTER IGNITES STAGE 2** FIRST STAGE, BOOSTER IGNITES LIFTOFF!

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Each Multi-Stage Rocket **Booster Contains an** Estes® Engine. Once the Engine Fuel is Exhausted, the Boosters Detach and **Tumble Gently to the** Ground for Reuse.

...This is How

STAGE 3

STAGE 2

STAGE

2092 Mongoose™ Length: 27 in. (68.6 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) 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 - \$16.99



5 * *

2437 Savage™ Length: 31.8 in. (80.8 cm) Diameter: 1.33 in. (34 mm) Recovery: 15 in. (38.1 cm) Parachute; Tumble Projected Altitude: 1600 ft. (488 m) Recommended Engines: Rocket Only: B4-2, B6-2, B6-4, C6-5 Two Stages: Rocket: A8-5, B6-4, B6-6, C6-5, C6-7 Booster: D12-0 MSRP - \$25.99



ESTES

7275 Sterling Silver™ Length: 22 in. (55.9 cm) Diameter: 0.74 in. (19 mm) Recovery: 30 in. (76.2 cm) Streamer; Tumble Projected Altitude: 2600 ft. (792 m) Recommended Engines: Rocket Only: A8-5, B6-6, C6-7

Two Stages: Rocket: A8-5, B6-6, C6-7 Booster: A8-0, B6-0, C6-0 **MSRP - \$14.99**



1946 Boosted Bertha[™]

DERTHA

Length: 28.2 in. (71.6 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute; Tumble Projected Altitude: 1000 ft. (305 m) Recommended Engines: Rocket Only: B4-2, B4-4, B6-2, B6-4, B6-4, B6-2, B6-4, B6-6, C6-5, C6-7 Two Stages: Rocket: A8-3, A8-5, B4-4, B6-2, B6-4, B6-6, C6-5, C6-7 Booster: A8-0, B6-0, C6-0 **MSRP - \$29.99**





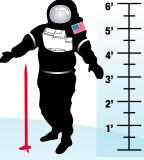
7250 Twin Factor™

Length: 6 in. (15.2 cm) Diameter: 4.3 in. (109 mm) Recovery: Tumble Projected Altitude: 150 ft. (46 m) Recommended Engines: Rocket Only: A3-4T, A10-3T, A10-PT Two Stages: Rocket: 1/4A3-3T, 1/2A3-2T, 1/2A3-4T, A3-4T, A10-3T, A10-PT Booster: A10-0T MSRP - \$13.99



7245 Comanche-3™

Length: 41 in. (104.1 cm) Diameter: 0.98 in. (25 mm) Recovery: 36 in. (91.4 cm) Dual Streamer; 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, C6-7 Booster: B6-0, C6-0 Three Stages: Rocket: B6-6, C6-7 Booster: B6-0, C6-0 Booster: C11-0, D12-0 MSRP - \$23.99



Comanch-3 Size

Comanche-3™

7276 Checkmate[™]

Length: 17 in. (43.2 cm) Diameter: 0.74 in. (19 mm) Recovery: 18 in. (45.7 cm) Streamer; Tumble Projected Altitude: 900 ft. (274 m) Recommended Engines: CHESTORY Rocket Only: A3-4T, A10-3T Two Stages: Rocket: 1/2A3-4T, A3-4T, A10-3T Booster: A10-0T MSRP - \$12.99







1329 Multi-Roc™

Length: 25 in. (63.5 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute; Glide; Tumble Projected Altitude: 1200 ft. (366 m) **Recommended Engines:** Rocket Only: B6-4, B6-6, C6-5, C6-7 Two Stages: Rocket: B6-4, B6-6, C6-5, C6-7 Booster: B6-0, C6-0 MSRP - \$22.99



Fun Recovery Systems!

Watching your model rocket liftoff is only part of the fun - seeing the whoosh - pop of the parachute when the rocket reaches apogee is equally thrilling! Estes® model rocketry recovery systems vary depending upon each rocket's specifications and engineering design. Most model rockets rely on traditional parachute or streamer recovery. Factors, such as rocket size, engine power and launch site dimension, are used to determine the size or number of parachutes to be used or if a streamer should be used to keep a high-performance rocket from drifting too far from the launch site and becoming lost. A few model rockets are so light that they either simply tumble or flutter gently back to earth; in essence, their lightweight construction is the recovery system.

There are also combinations of recovery systems and other unique methods of recovery. These include spin and glide recovery. Spin recovery is created by the rocket's spinning (usually with helicopter blades), creating drag. And glide recovery utilizes lift created by varying wing shapes and designs, requiring careful trimming for optimum performance.

7288 Solo™

Length: 25.3 in. (64.3 cm) Diameter: 1.33 in. (34 mm) Recovery: 15 in. (38.1 cm) Parachute; Glide Projected Altitude: 500 ft. (152 m) Recommended Engines: B6-2, C5-3, C6-3 MSRP - \$19.99

NEW

7279 Double Ringer[™] Length: 25.3 in. (64.3 cm)

Length: 25.3 in. (64.3 cm) Diameter: 1.33 in. (34 mm) Recovery: 15 in. (38.1 cm) Parachute; Glide Projected Altitude: 500 ft. (152 m) Recommended Engines: B6-2, C5-3, C6-3 MSRP - \$19.99



The Double Ringer™ has Unique Cylindrical Gliders that Detach and Circle Back to Earth.

7282 Tazz™

Length: 16.6 in. (42.2 cm) Diameter: 0.98 in. (25 mm) Recovery: 18 in. (45.7 cm) Streamer; Spin Projected Altitude: 700 ft. (213 m) Recommended Engines: A8-3, B6-2, B6-4, C5-3, C6-3 MSRP - \$22.99



7241 Quinstar™

The Quinstar[™] is a lightweight rocket which allows for a spin recovery that requires no parachute. Length: 3 in. (7.6 cm) Diameter: 8 in. (203 mm) Recovery: Spin Projected Altitude: 150 ft. (46 m) Recommended Engines: B6-0, C6-0 MSRP - \$21.99



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During the Tazz™ Recovery, the Rocket Spins Back to Earth While the Engine Mount Separates and Gently Descends with Attached Streamer!

7280 Gryphon[™]

Our easiest to build boost glider kit ever! Designed for the true beginner, the Gryphon has all precision laser cut parts that assemble on a flat surface. No airfoil or dihedral is needed to make this clever glider fly! Length: 18 in. (45.7 cm) Diameter: 0.54 in. (14 mm) 020202 Recovery: 12 in. (30.5 cm) Streamer; Glide Projected Altitude: 700 ft. (213 m) Recommended Engines: 1/2A3-2T, A3-4T, A10-3T MSRP - \$18.99



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

Designer Inature Series

arry Stine was a 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 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.

7310 Antar™

Length: 23.2 in. (58.9 cm) Diameter: 1.64 in. (42 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 450 ft. (137 m) Recommended Engines: B6-2, B6-4, C6-5 **MSRP - \$29.99**



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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 will be re-introductions of lesser-known classics and others will be 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!

> 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.

> > Mester

7295 Orange Bullet[™] Length: 5.9 in. (15 cm) Diameter: 0.74 in. (19 mm) Recovery: Featherweight Projected Altitude: 500 ft. (152 m) Recommended Engines: 1/2A6-2, A8-3 MSRP - \$11.99

he Orange Bullet[™] was the prototype for the famous Astron Scout[™]. This rocket used metal weights glued to the end of the fin tips to shift the center of gravity back after the engine popped out at apogee resulting in the rocket tumbling gently instead of streamlining in nose first. It worked, but after many experimental flights, Vern realized he could achieve the same thing without ejecting the engine. He could use the weight of the rocket engine itself to shift the center of gravity backwards. 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.



Estes Chief Technology Officer Ellis Langford (top), Estes General Manager Bill Stine (left), and Estes Industries Founder Vern Estes are pictured with Vern Estes' very first rocket design, the Orange Bullet.

IMAGINE NEW WORLDS

NEW!

7309 Super Mars Snooper™ Length: 29.3 in. (74.4 cm) Diameter: 1.33 in. (.34 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 800 ft. (244 m) Recommended Engines: C11-3, D12-5

MSRP - \$34.99

Available Summer 2021

Super Mars Snooper[™] is a nuclear- powered reconnaissance craft designed to explore Mars' outermost moon, Deimos. Designed to fly in two directions – nose first as a space rocket and tail first as a ramjet airplane. This "upscaled" version of the original "K-20" released in 1965 stands 29.3 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"!

7285 Leo Space Train™ Length: 17 in. (43.2 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parac

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LEB SALETRAM

Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 300 ft. (91 m) Recommended Engines: C5-3, C6-3

> Get ready to ride on the space train! The LEO Space Train[™] is a stunning model rocket designed after government/corporate-style space planes that deploy satellites into Low Earth Orbit (LEO) — hence, the decal of the constellation "Leo" the Lion.

Not unlike the Space Shuttle, real space planes land on runways and are prepared once again for further flights. Our model can be launched over and over again using Estes[®] engines and each time, gently return back to earth via parachute recovery!

7284 Starship Octavius™

Length: 20 in. (50.8 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: A8-3, B4-4, B6-4, Č6-5, C6-7





Snap together construction, ready to fly in minutes!

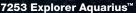
STARSHUP OCTAVILLS

Testes

Length: 26 in. (66 cm) Diameter: 1.33 in. (34 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 525 ft. (160 m) Recommended Engines: B4-2, B6-2, B6-4, C6-5

> AIR FORCE FC 803 Standing over 2 feet tall, this model rocket features laser cut precision balsa parts, a detailed blow molded nose cone and three 5-color decal sheets that will finish this model with eye-popping décor!

7260 Protostar[™] Length: 24 in. (61 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 1350 ft. (411 m) Recommended Engines: C11-3, D12-5, E12-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod 2244; sold separately



A scale-like model of the future, the interstellar voyager Explorer Aquarius! Stretch your skills with this unique and challenging kit. A great looker on the pad and in the air!

nited States

Length: 21.8 in. (55.4 cm) Diameter: 2.75 in. (70 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 750 ft. (229 m) Recommended Engines: D12-3, D12-5, E12-4, E12-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod 2244; sold separately.

MSRP - \$38.99

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From the first moments that man embarked from Earth to colonize the solar system, the Astron Explorer[™] was critical in furthering mankind's space explorations. Equipped with long, hefty fuel tanks, the rocket's design aims to carry passengers and payloads safely across vast reaches of the galaxy.

When mankind built its first outpost on Saturn's icy moon Europa, the Astron Explorer[™] took us there. When astronauts first journeyed beyond the outskirts of Pluto — to the 10th planet of our solar system, 2003 UB313 the Astron Explorer[™] took us there.





ron Explore

ENDO

One of **Our Longest Rockets!**

7264 Astron Explorer

Length: 42.2 in. (107.2 cm) Diameter: 1.33 in. (34 mm) Recovery: 18 in. (45.7 cm) Parachute **Projected Altitude:** 1200 ft. (366 m) **Recommended Engines:** C11-3, D12-3, E12-4 Requires 3/16 in. (5 mm) Maxi[™] Launch Rod 2244; sold separately

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7249 Expedition[™]

Length: 25.6 in. (65 cm) Diameter: 2.22 in. (56 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 1100 ft. (305 m) Recommended Engines: C11-3, D12-5, E12-4, E12-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod 2244; sold separately



COLONIZE MARS

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The first crewed landing on Mars is still years away but Estes can't wait that long [you don't have to wait that long]! Destination Mars imagines a future timeline for Mars exploration, colonization, and more. Join the adventure now and travel with us to Mars, its moons, and all points along the way!

Space exploration experts predict a Mars landing by 2035 and that's where Destination Mars begins! Imagine the historic journey of the Mars One Expedition and the first men and women who'll make that trip. [One of them might even be you!] It's a grueling ninemonth space voyage just to reach Mars orbit. Steering the lander through the thin Martian atmosphere isn't easy, but after a few tense moments the commander sets down on the dusty red plains – success! Over the next few years other Mars Expeditions follow with new technologies, more advanced rockets, and larger crews. It's the golden era of Mars exploration!

Eventually, humans arrive on Mars to stay. The temporary Expedition habitats are replaced with permanent bases and humanity has a new home away from home! As colony ships trickle in from Earth the Mars bases grows into a city, and the cities multiply across the surface. Terraforming efforts to remake Mars into a livable, Earth-like planet are started, and Mars becomes the launching point for exploring the asteroids, the outer planets, and beyond! To be sure, there are setbacks and sacrifices along the way, but progress, like adventure, constantly drives forward!

And that's what Destination Mars is: an adventure and a peek into the imagined future of space flight! But it doesn't have to stay imaginary! Humankind will travel by rocket to Mars someday. Someone has to plan those missions, design the hardware, build the rockets, and land them under the red Martian sky. Why can't that someone be you? [Shouldn't that someone be you?]

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Destination Mars™ imagines a future timeline for Mars exploration, colonization and more. Join the adventure now and travel with us to Mars, its moons and all points along the way!

THE LEAPER

It doesn't just fly... it leaps! The Leaper helps Mars explorers get to where they need to go fast!

Officially it's the LAMPMU – Low Altitude Mars Personal Maneuvering Unit – but no one ever calls it that. To most people, on Earth and on Mars, it's simply "The Leaper™." Developed for the first Mars Expedition of 2035, the jetpack was envisioned as a way to rapidly travel between surface habitats. What the engineers didn't count on was just how fun it would be! Why walk when you can leap!

SIDER

7297 Destination Mars[™] The Leap<u>er[™]</u>

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Height: 7.7 in. (19.6 cm) Width with Legs: 23.4 in. (59.4 cm) Recovery: Featherweight Projected Altitude: 75 ft. (23 m) Recommended Engines: A10-0T

MSRP - 324.99

Launches Up to 100 ft. on the Porta-Pad II™ Launch Pad!

MARS LONGSHIP

The workhorse of the colonization fleet and a marvel of dynamic engineering, the Destination Mars[™] Mars Longship[™] planetary transport is the lifeline connecting old Earth to new Mars! Add it to your Mars fleet today!

First deployed in 2052 to support the expanding Mars outpost, the Mars Longship[™] carries crucial supplies and eager colonists from Earth to Mars orbit, completing a circuit between planets every 18 months. But to the colonists the massive vessel is more than a cargo ship – with each return, it's a vital link to the old planet and a reminder of home. Build and launch your own Mars Longship[™] and follow the full story of the human exploration and settlement of the red planet in Estes[®] Destination Mars!

7296 Destination Mars[™] Mars Longship[™]

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Length: 27.2 in. (69.1 cm) Diameter: 1.33 in. (34 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 500 ft. (152 m) Recommended Engines: D12-3, E12-4

MAV LANDER

The Destination Mars[™] MAV[™] (Mars Ascent Vehicle) has one job: bring the Mars Expedition crew back from the surface of the red planet and get them home safely! The MAV is the first release in Estes' latest series, Destination Mars[™]. It's 2035 and after a second global space race humanity has taken another "giant leap" and Mars is the prize. While it may require the efforts of an entire nation to reach Mars, the return is much simpler: a single rocket – the MAV – must lift off successfully from the dusty red plains and carry the crew back home. The highly-detailed MAV is a snap to assemble, featuring a colorful body wrap, highly detailed nosecone, realistic landing struts, and a large 18" parachute. Do you have what it takes to build and launch the Estes MAV?

7283 Destination Mars[™] MAV Lander[™]

Length: 12.7 in. (32.3 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 250 ft. (76 m) Recommended Engines: C5-3, C6-3

JPACE CORPJ

ADDRESS TO: SPACE CORPS ACADEMY INCOMING CLASS - SEPTEMBER 15, 2061

Welcome new cadets, to Space Corps and Space Corps Academy! I am Admiral Beard, superintendent of this fine academy and your commanding officer for the next four years. You have been selected to join an elite group of young men and women representing every settled human planet, moon, and orbital habitat. You are the bravest and brightest from one end of the Solar System to the other, and you will do great things. Starting today!

Before you begin your academy careers, let me remind you of the heroes and events that preceded you. It was barely a century ago that humanity first flew into space and only eight short years after that we were leaving footprints on Luna. What followed was the era of space stations, space shuttles, and space tourists. What an exciting time that must have been! Eventually, humanity decided to return to the moon to stay - first a moon base, then a colony, and now magnificent Armstrong City. We sent your parents' generation to Mars - five expeditions starting in '35 and now a permanent colony is underway! Today we're exploring the Asteroid Belt and the outer planets in ways that wouldn't have been possible even ten years ago. Humanity is pushing ever outward into the solar system and to the stars... and that's where vou come in!

As you surely know, Space Corps was established in 2033 by the space-faring nations of Earth to support the exploration of our solar region and provide defense against any dangers, should they arise. Upon graduating from this academy, you will be fully prepared to take your place alongside those already serving Space Corps. The opportunities are boundless! You may be assigned to a Corvette crew patrolling the moons of Mars, or aboard a survey vessel mapping the asteroids for vital resources, or even supporting a Centurion interceptor exploring the rings of Saturn up close. And someday - perhaps sooner than you think you could be leading a mission beyond our own planets and moons to the nearest stars... and beyond. We're just getting started!

So, cadets, once again welcome to Space Corps! Work hard, learn all you can, and stay hungry for adventure. There's a universe out there waiting for you!





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Space Corps[™] is Here! This Thrilling New Estes[®] Series Takes You to the Front Line of Space Exploration and a Future of Non-Stop Excitement!

CORVETTE CLASS 🏧

The Estes Corvette Class military rocket is an agile "ship of the line" of the Space Corp fleet. This versatile rocket serves as the primary vessel for all functions of the Corps - from patrol missions, to transport duty, to intercept activities, the Corvette Class crews are ready to take on any task, no matter the danger!

Standing more than two feet tall from the tip of its extended nose cone to the end of its threaded engine retainer, the Corvette Class is an impressive flying model rocket! Laser-cut, multi-piece balsa fins tipped with simulated particle-beam cannons and a large sheet of red, white and blue insignia water-slide decals complete the stylish look. Join Space Corp and launch vour own Corvette Class flving model rocket today!

7281 Space Corps[™] Corvette Class[™]

Length: 25 in. (63.5 cm) Diameter: 1.33 in. (34 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 650 ft. (198 m) Recommended Engines: B4-4, B6-4, C5-3, C6-3, C6-5

LUNAR SCOUT M

The Lunar Scout series of remote space probes was critical to the success of the new lunar landing program of the late 2020s. These automated probes mapped out the moon's surface in detail to identify prospective landing sites for the "Second Giant Leap" as that series of lunar missions became known. Inexpensive to manufacture and reliable to operate. Space Corps later adapted the Lunar Scout to explore Mars and its twin moons Phobos and Deimos.

The Estes Lunar Scout is a lightweight model of this future historic space probe. The highly detailed, Intermediate-level kit features laser-cut cardstock fins and other structural parts, with colorful water-slide decals for added realism. With flights up to 200 feet on an Estes mini A10-0T engine and featherweight recovery, this rocket makes for a great small field launcher. No

need to wait for NASA to create their Lunar Scout - build and fly yours today!

7290 Space Corps[™] Lunar Scout[™] Length: 4 in. (10.2 cm) Diameter: 0.74 in. (19 mm) **Recovery: Featherweight** Projected Altitude: 200 ft. (61 m) Recommended Engines: 1/2A3-2T, A3-4T, A10-0T, A10-3T

CENTURION M

This Space Corps Agile Space Interceptor Fighter was designed for one purpose: defend Earth and its Solar Colonies from a mysterious visitor lurking in the asteroid belt. Fly the Centurion fighter and do your part to safeguard humanity!

With no choice but to prepare for the worst, Space Corps commissioned Project Centurion to meet the defense needs of Earth and the colonies. We are happy to report that after years of development and testing, the Centurion Agile Space Interceptor is now operational.

No Assembly Required!

7291 Space Corps[™] Centurion[™]

Length: 11.1 in. (28.2 cm) Windspan: 7.5 in. (19.1) Recovery: 9 in. (22.9 cm) Parachute Projected Altitude: 700 ft. (213 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5

DRC-1TM Available Summer 2021

The Deep Atmosphere Research Craft is a one of a kind scientific vessel developed by Space Corps Science Division to explore the gas giants of the outer solar system. Designated DARC-1, this multi-section crewed vessel is designed to enter and maneuver within the thick atmospheres of Jupiter-type worlds for study and exploration.

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The lifting body characteristics of the DARC-1 are ideal for atmospheric flight in dense gases and for maintaining station under turbulent conditions. At the conclusion of its research mission, the DARC-1 initiates return by igniting and subsequently discarding its aft booster section to break atmosphere and set a trajectory for home.

The DARC-1 first became operational in 2052 and successfully surveyed the atmospheres of Jupiter, Saturn and several of their large moons before it was claimed in a tragic accident over Titan.

7307 Space Corps[™] DARC-1[™]

Length: 9.3 in. (23.6 cm) Diameter: 4.2 in (107 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 400 ft. (122 m) Recommended Engines: B6-2, C5-3, C6-3 MSRP - \$29.99



For More Than 62 Years, Estes® Has Produced the Finest Scale Replicas of Rockets and Missiles.

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Scale Model Rockets Make History and Your Hobbies Come...

SCALE MODELS





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Scale Model Rockets

This category features detailed, miniature replicas of full-scale military, commercial, or space agency rockets, which come in a variety of scale sizes and model rocket engine requirements. Rockets in this class usually require advanced-level building skills using many handcrafted or molded detail parts. These rockets often require rocketeers attempting to build these models to have mastered a variety of skills in assembly, painting and launching techniques. 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.

NEW!



The 2206 NASA <u>SLS</u>Comes

Almost Ready-to-Fly Out of the Box.



Clear Plastic Fins to Stabilize Flights and Can Be Used for Display!

2206 NASA SLS

1:200 Scale

Length: 19.4 in. (49.3 cm) Diameter: 1.64 in. (42 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 350 ft. (107 m) Recommended Engines: C5-3, C6-3

MSRP - \$69.99

The 2160 Saturn V Comes Almost Ready-to-Fly Out of the Box.

SCALE MODELS



DISPLAY STAND INCLUDED!

The Estes limited production and 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.



Model Features a Clear Plastic Fin Unit to Stabilize Flights!

2160 Anniversary Saturn V

1:200 Scale

Length: 21.8 in (55.4 cm) Diameter: 1.98 in. (50 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 200 ft. (61 m) Recommended Engines: C5-3, C6-3 MSRP - \$69,99



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.

NEW!

7251 Saturn 1B 1:100 Scale

Length: 26.8 in. (68.1 cm Diameter: 2.62 in. (67 mm) Recovery: 1x 15 in. (38.1 cm), 1x 18 in. (45.7 cm) Projected Altitude: 1000 ft. (305 m) Recommended Engines: C11-3, D12-3, E12-4, E12-6 MSRP - \$69,99





In 1973, the last Saturn V was launched with a special payload – Skylab, America's first space station. Now you can build and fly your own 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.

1973 Saturn Skylab 1:100 Scale

Length: 41.25 in. (104.8 cm) Diameter: 3.94 in. (100 mm) Recovery: 1x 18 in. (45.7 cm), 2 x 24 in. (61 cm) Projected Altitude: 400 ft. (122 m) Recommended Engines: E16-4, F15-4

MSRP - \$99.99



2056 U.S. Army Patriot M-104 1:10 Scale

Length: 21.3 in. (54.1 cm) Diameter: 1.64 in. (42 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 600 ft. (183 m) Recommended Engines: B4-4, B6-4, B6-6, C6-5 MSRP - \$18.99



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The MIM-104 Pariot is a surface-to-air missile system used by the United States Army and several Allied Nations.

2446 Mini Honest John 1:24 Scale

Check out this mini-engine powered version of the U.S. Army 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! Length: 11.75 in. (29.8 cm) Diameter: 0.98 in. (25 mm) Recovery: 12 in. (30.5 cm) Parachute Projected Altitude: 325 ft. (99 m) Recommended Engines:

1/2A3-2T, A3-4T, A10-3T MSRP - \$12.99





An iconic weapon of the Cold War, the MGR-1 Honest John battlefield rocket could carry nuclear or conventional warheads.

7243 Black Brant II 1:13 Scale

The Estes[®] Black Brant II is a 1:13 scale replica of one of the earliest of the Black Brant sounding rockets. Loaded with scale details, this rocket really moves using the recommended Estes[®] D12 engines (not included).

Length: 24.9 in. (63.2 cm) Diameter: 1.33 in. (34 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 1300 ft. (396 m) Recommended Engines: C11-3, D12-5, D12-7

Requires 3/16 in. (5 mm) Maxi™ Launch Rod (2244) sold separately.







The Canadian Black Brant line of 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.

7240 Honest John 1:14 Scale

Length: 23 in. (58.4 cm) Diameter: 1.64 in. (42 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 1400 ft. (427 m) Recommended Engines: C11-3, D12-5, E12-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod (2244), sold separately.

MSRP - \$28.99





Made to be a fin-stabilized, unguided artillery rocket, the Honest John was mounted on the backs of military trucks. It had a range of 15.4 miles with a 20 kiloton nuclear warhead or a 1500 pound conventional warhead.

7255 Little Joe I 1:34 Scale

Length: 17.6 in. (44.8 cm) Diameter: 2.34 in. (59 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 400 ft. (122 m) Recommended Engines: B4-4, B6-4, C5-3, C6-3, C6-5

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MSRP - \$32.99



The Little Joe I

booster was the first rocket designed solely for manned spacecraft qualifications and to measure critical parameters in flight.



The Mercury-Redstone 4 was the second United States human spaceflight. Piloted by astronaut Virgil "Gus" Grissom, it launched on July 21, 1961.

1921 Mercury Redstone 4/ Liberty Bell 7

1:34 Scale

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Length: 28.6 in. (72.6 cm) Diameter: 2.05 in. (52 mm) Recovery: 15 in. (38.1 cm) Parachute Projected Altitude: 200 ft. (61 m) Recommended Engines: C5-3, C6-3 **MSRP - \$26.99**





7271 SA-2061 Sasha[™]

Length: 31.5 in. (80 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 2300 ft. (701 m) Recommended Engines: Rocket Only: C11-3, C11-5, D12-5, E12-6 Two Stages: Rocket: D12-5, D12-7, E12-8 Booster: D12-0, E12-0 Requires 3/16 in. (5 mm) Maxi[™] Launch Rod 2244; sold separately



2162 Big Daddy™

Length: 19 in. (48.3 cm) Diameter: 3 in. (76 mm) Recovery: 24 in. (61 cm) Parachute Projected Altitude: 900 ft. (274 m) Recommended Engines: C11-3, D12-3, D12-5, E12-4, E12-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod 2244; sold separately. MSRP - \$34,99



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3226 Hi-Flier® XL

Length: 31 in. (78.7 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 1325 ft. (404 m) Recommended Engines: C11-3, D12-5, D12-7, E12-6, E12-8 w/Engine Adapter (sold separately) - C5-3, C6-3 Requires 3/16 in. (5 mm) MaxiTM Launch Rod 2244; sold separately MSRP - \$21.99



9719 Super Big Bertha[™]

Length: 36.8 in. (93.5 cm) Diameter: 2.6 in. (66 mm) Recovery: 24 in. (61 cm) Parachute Projected Altitude: 1200 ft. (366 m) Recommended Engines: E16-4, F15-6 w/Engine Adapter (sold separately) - D12-3

MSRP - \$39.99



9707 Majestic[™] Pro Series II™ E2X®

Length: 35.3 in. (89.7 cm) Diameter: 2 in. (51 mm) Recovery: 18 in. (45.7 cm) Nylon Parachute Projected Altitude: 2200 ft. (671 m) Recommended Engines: E16-6, F15-6, F15-8 w/Engine Adapter (sold separately) - D12-3, E12-4





9716 Star Orbiter[™] Pro Series II[™]

Length: 45.2 in. (114.8 cm) Diameter: 1.64 in. (42 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 1800 ft. (549 m) Recommended Engines: E16-6, F15-8 w/Engine Adapter (sold separately) - D12-3, E12-4 MSRP - \$24.99



The Doorknob was a sounding rocket manufactured from Lacrosse rocket motors for the project Hardtack Nuclear Test Series.

9720 Doorknob Pro Series II™

1:5.3 Scale Length: 26.9 in. (68.3 cm) Diameter: 3 in. (76 mm) Recovery: 18 in. (45.7 cm) Nylon Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: E16-4, F15-4, F15-6 **MSRP - \$39.99**





9721 Der Big Red Max[™]

Length: 29.9 in. (75.9 cm) Diameter: 3 in. (76 mm) Recovery: 18 in. (45.7 cm) Parachute Projected Altitude: 1100 ft. (335 m) Recommended Engines: E16-4, F15-4

MSRP - \$49.99



Over 29 in.

Tall!



Engine Adapter Set MSRP - \$5.99



3172 PS II[™] Shock Cord Accessory Pack 3 heavy-duty elastic shock cords; 1/2 in. (13 mm) x 96 in. (243.8 cm)

MSRP - \$10.99



9752 Pro Series II™ E2X[®] Booster For use with the 9707 Majestic™ Recommended Engine: F15-0

MSRP - \$9.99



3556 PS II™ **Recovery Wadding** Approximately 216 sheets for larger rockets. Can be used in anv Estes® rocket.

MSRP - \$9.99



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The NAR Safety Code requires all rockets that launch with motors larger than a "D" to be launched from thirty (30) feet. We suggest using the 2240 Pro Series II launch controller. It is also capable of launching cluster engine configurations (see below).

