



CATALOG 2022



THE WORLD LEADER IN MODEL ROCKETRY



TABLE OF CONTENTS

Introduction	3	Scale Model Rockets	54
Skill Key	5	Fly Big	62
Starter Sets	6	Pro Series II	64
Launch Sets	8	Education Introduction	68
Beginner Rockets	12	Educator Bulk Packs	72
More Challenging Rockets	18	Educator Engine Bulk Packs	76
Payload Rockets	26	Accessories	80
Multi-Stage Rockets	28	Engines	92
Fun Recovery System	34	Engine Time/Thrust Curves Chart	95
Designer Signature Series	38	Model Rocket Basics	96
Imagine New Worlds	40	Engine Basics	98
Destination Mars	44	NAR Safety Code	100
Space Corps	48	Index	102

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 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 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 hobby beginner or expert, Estes Industries will help you advance higher, further and faster in your adventures.



OUR VISION:

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

OUR MISSION:

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

THE FOUNDATIONS OF ROCKETRY

Estes was established by Vern and Gleda Estes 64 years ago, and it's 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. It's those same principles we use today. These have led model rocketry to a near flawless safety record, and millions remember the moment they first pressed launch. We're proud to be a part of your journey.



NAVIGATE OUR CATALOG WITH EASE!

The information found on this page will assist you on your journey through Estes 2022 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 if the product is right for you. *Let's get started!*

This is our example rocket. It is also featured on page 18 of it's product page.

Rocket Name

Product Number

Rocket Specs

Recovery Type

Engine Type
Recommended

Price

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 \$14.99



SKILL KEY



Beginner



Intermediate



Advanced



Expert



Master

Skill Level

We have updated our Skill Level Icons. Left is the key for each icon and its corresponding Skill Level.

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



STARTER SETS

Start Your Estes Experience Here!

Here's what's in the box:

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

AstroCam® Starter Set

Product Number: 5325
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

MSRP \$79.99



**SNAP TOGETHER
NO GLUE
REQUIRED**



Everything You Need to Launch Included!*

*Launch Controller requires 4 AA batteries sold separately.

NEW!



Athena X™ Starter Set*

Product Number: 5304

2 IN 1

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.



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 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, plugs, starters, recovery wadding, tools, construction and finishing supplies for the rockets and 4 new AA 1.5V alkaline batteries for the launch controller - sold separately.

Space Corps Centurion™ Launch Set

Product Number: 5324
Length: 11.1 in. (28.2 cm)
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 \$59.99



Includes everything you see here!

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

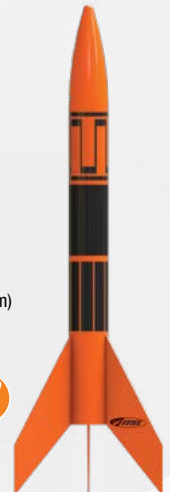
MSRP \$51.99



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





**NO ASSEMBLY
REQUIRED!**

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 ASSEMBLY
REQUIRED!**



2 IN 1

Rascal™

Length: 14.5 in. (36.8 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
Sold Separately:
A10-3T w/ Engine Adapter



HiJinks™

Length: 14.5 in. (36.8 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
Sold Separately:
A10-3T w/ Engine Adapter

MSRP \$57.99



**SNAP TOGETHER
NO GLUE
REQUIRED**

Flash® Launch Set

Product Number: 1478
Length: 16.2 in. (41.1 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 \$51.99



Journey™ Launch Set

Product Number: 1441
Length: 19.3 in. (49 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 \$52.99



Tandem-X™ Launch Set

Product Number: 1469

2 IN 1

Amazon™

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



Crossfire™ ISX

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 \$56.99



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,
A3-4T, A10-3T

MSRP \$10.99



**ALSO AVAILABLE
IN A BULK PACK**
See Pg. 73



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



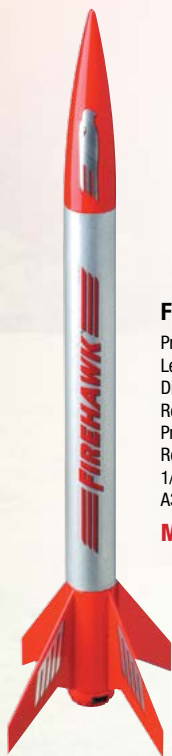
**ALSO AVAILABLE
IN A BULK PACK**
See Pg. 72



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,
A3-4T, A10-3T

MSRP \$20.99



**NO ASSEMBLY
REQUIRED!**

Athena™

Product Number: 2452
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 \$14.99



**SNAP TOGETHER
NO GLUE
REQUIRED**

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

MSRP \$21.99



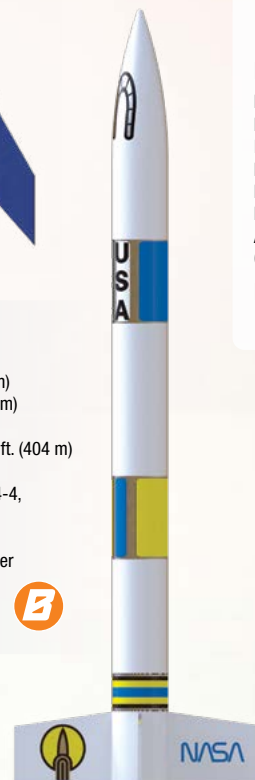
Generic E2X®

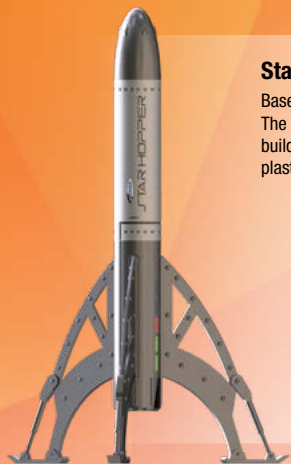
Product Number: 2008
Length: 13.5 in. (34.3 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Parachute
Projected Altitude: 1325 ft. (404 m)
Recommended Engines:
1/2 A6-2, A8-3, A8-5, B4-4,
B6-4, B6-6, C6-5, C6-7
Sold Separately:
A10-3T w/ Engine Adapter

MSRP \$23.99



**ALSO AVAILABLE
IN BULK A PACK**
See Pg. 72





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.

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, A3-4T, A10-3T

MSRP \$14.99



**SNAP TOGETHER
NO GLUE
REQUIRED**

**ALSO AVAILABLE
IN A BULK PACK**
See Pg. 73



**SNAP TOGETHER
NO GLUE
REQUIRED**

Firestreak SST™

Product Number: 0806
Length: 10.2 in. (25.9 cm)
Diameter: 0.86 in. (22 mm)
Recovery: Streamer
Projected Altitude: 350 ft. (107 m)
Recommended Engines:
1/2 A3-2T, 1/2 A3-4T,
A3-4T, A10-3T

MSRP \$10.99



**ALSO AVAILABLE
IN A BULK PACK**
See Pg. 73



Chiller™

Product Number: 2495
Length: 19.4 in. (49.3 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 600 ft. (183 m)
Recommended Engines:
B4-2, B6-2, B6-4, C5-3,
C6-3, C6-5

MSRP \$18.99



**3 ROCKET
SET!**

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, A3-4T, A10-3T

MSRP \$25.99



Phantom Blue™

Product Number: 2483
Length: 19.4 in. (49.3 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 \$20.99



Terra GLM™

Product Number: 7292
Length: 17.8 in. (45.2 cm)
Diameter: 1.1 in. (28 mm)
Recovery: Parachute
Projected Altitude: 875 ft. (267 m)
Recommended Engines:
B4-4, B6-4, C6-5

MSRP \$20.99





**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



Spirit™

Product Number: 2492
Length: 21 in. (53.3 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 700 ft. (213 m)
Recommended Engines:
B4-2, B4-4, B6-2, B6-4,
C5-3, C6-3, C6-5

MSRP \$17.99



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

MSRP \$15.99



FLYIN' HIGH AGAIN! ASTROCAM™ IS BACK!

**COME ALONG
FOR THE RIDE!**

- Easy snap together design
- No finishing materials needed
- Includes 16GB memory card for hours of content
- Easily connects to your computer's USB port for downloading your videos and charging the camera



**Insert the HD Camera
into the nose cone
for a whole new
experience of model
rocket flight!**

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

MSRP \$54.99



SEE IT!



HEAR IT!



EXPERIENCE IT!

MORE CHALLENGING

These rockets take more time to build.

Yankee™

Product Number: 1381
Length: 11 in. (27.9 cm)
Diameter: 0.74 in. (19 mm)
Recovery: Streamer
Projected Altitude: 1700 ft. (518 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 \$15.99



*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, A3-4T, A10-3T

MSRP \$7.99



Indicator™

Product Number: 7244
Length: 21.2 in. (53.8 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Parachute
Projected Altitude: 200 ft. (61 m)
Recommended Engines:
A3-4T, A10-3T

MSRP \$16.99



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



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



**ALSO AVAILABLE
IN A BULK PACK
See Pg. 74**

MORE CHALLENGING

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,
A3-4T, A10-3T

MSRP \$7.99



This high flying iconic classic is a great way to expand your rocket building skills!

Alpha®

Product Number: 1225
Length: 12.3 in. (31.2 cm)
Diameter: 0.98 in. (25 mm)
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. 75**

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

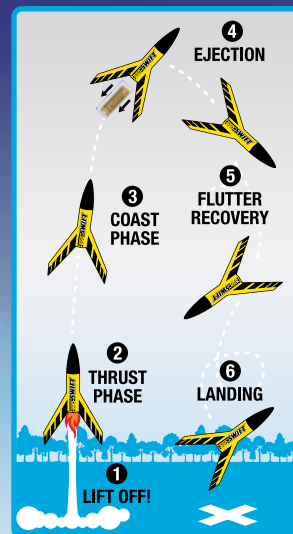


Hex-3 is a unique rocket made from folded cardstock!

Hex-3™

Product Number: 7263
Length: 3.2 in. (8.1 cm)
Diameter: 3.8 in. (97 mm)
Recovery: Tumble
Projected Altitude: 100 ft. (30 m)
Recommended Engines:
B6-0, C6-0

MSRP \$8.99



Featherweight rockets are so lightweight that they do not need a recovery system. They "flutter" on their return to earth for a soft landing!



Baby Bertha™

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



220 Swift™

Product Number: 0810
Length: 4.5 in. (11.4 cm)
Diameter: 0.54 in. (14 mm)
Recovery: Featherweight
Projected Altitude: 850 ft. (259 m)
Recommended Engines:
1/4 A3-3T, 1/2 A3-2T, 1/2 A3-4T,
A3-4T, A10-3T

MSRP \$10.99



Crossfire ISX™

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





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

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



Goblin™

Product Number: 7237
Length: 14.4 in. (36.6 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Streamer(s)
Projected Altitude: 1400 ft. (427 m)
Recommended Engines:
C11-3, C11-5, D12-5, D12-7

MSRP \$19.99



Citation Patriot™

Product Number: 0652
Length: 25.6 in. (65 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 600 ft. (183 m)
Recommended Engines:
B4-2, B6-2, B6-4, C6-5

MSRP \$26.99



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: 83

MSRP \$35.99



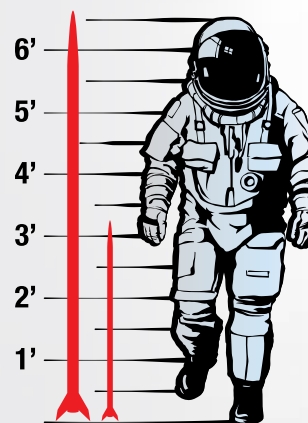
Mini Mean Machine™

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:
A3-4T, A10-3T

MSRP \$16.99

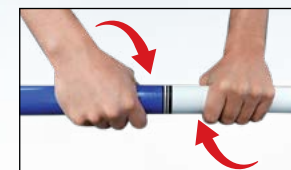


Note: Not to Scale
Shown for display purposes only.
Mini Mean Machine is half the
size of regular Mean Machine.



**MEAN MACHINE
VS.
MINI MEAN MACHINE**

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.





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?

Product Number: 7289
Length: 30 in. (76.2 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 400 ft. (122 m)
Recommended Engines:
C5-3, C6-3

MSRP \$29.99



Sidekick™

The only cluster rocket in the Estes fleet. Experience side-by-side engine thrust and a dual deployment streamer recovery!

Product Number: 7287
Length: 21.1 in. (53.6 cm)
Diameter: 1.8 in. (46 mm) x 2
Recovery: Streamer(s)
Projected Altitude: 700 ft. (213 m)
Recommended Engines:
Two B4-2 or Two B6-4

Requires (Sold Separately):
Pro Series II™ Launch Controller
See Page: 67

MSRP \$21.99



The Sidekick comes equipped with dual engine mounts!



Red Nova™

Product Number: 7266
Length: 21.6 in. (54.9 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 800 ft. (244 m)
Recommended Engines:
C11-3, D12-5, D12-7

Sold Separately:
C5-3, C6-3 w/ Engine Adapter
Requires (Sold Separately):
3/16 in. Maxi™ Launch Rod
See Page: 83

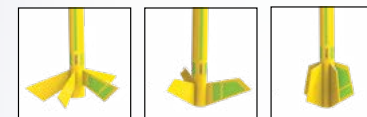
MSRP \$23.99



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



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 AVAILABLE IN A BULK PACK
See Pg. 74



Airborne Surveillance Missile™

Product Number: 7257
Length: 11.3 in. (28.7 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Parachute
Projected Altitude: 375 ft. (114 m)
Recommended Engines:
A3-4T, A10-3T

MSRP \$16.99



Nike-X

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

MSRP \$23.99



PAYLOAD ROCKETS

These rockets allow you to fly your favorite cargo!

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 small toys, 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!



Place an egg in the rocket payload section!

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

1

**ALSO AVAILABLE
IN A BULK PACK**
See Pg. 75



Supernova™

Product Number: 7248
Length: 27.5 in. (69.9 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Parachute, Tumble
Projected Altitude: 1550 ft. (472 m)
Recommended Engines:
Rocket Only: A8-5, B4-4, B6-4, C6-5, C6-7
Two Stage:
Rocket: A8-5, B6-6, C6-7
Booster: B6-0, C6-0

MSRP \$22.99

A

*Measure
your rocket's
altitude with
an Estes
Altimeter!
See Pg. 77*



*With an Estes payload
rocket, you can launch
eggs, altimeters and
more into the sky!*

Space Crater™

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!

Product Number: 7265
Length: 18.5 in. (47 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Parachute
Projected Altitude: 650 ft. (198 m)
Recommended Engines:
w/ Egg: C5-3, C6-3
w/o Egg: B4-4, B6-4, C6-5

MSRP \$22.99

B



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

B



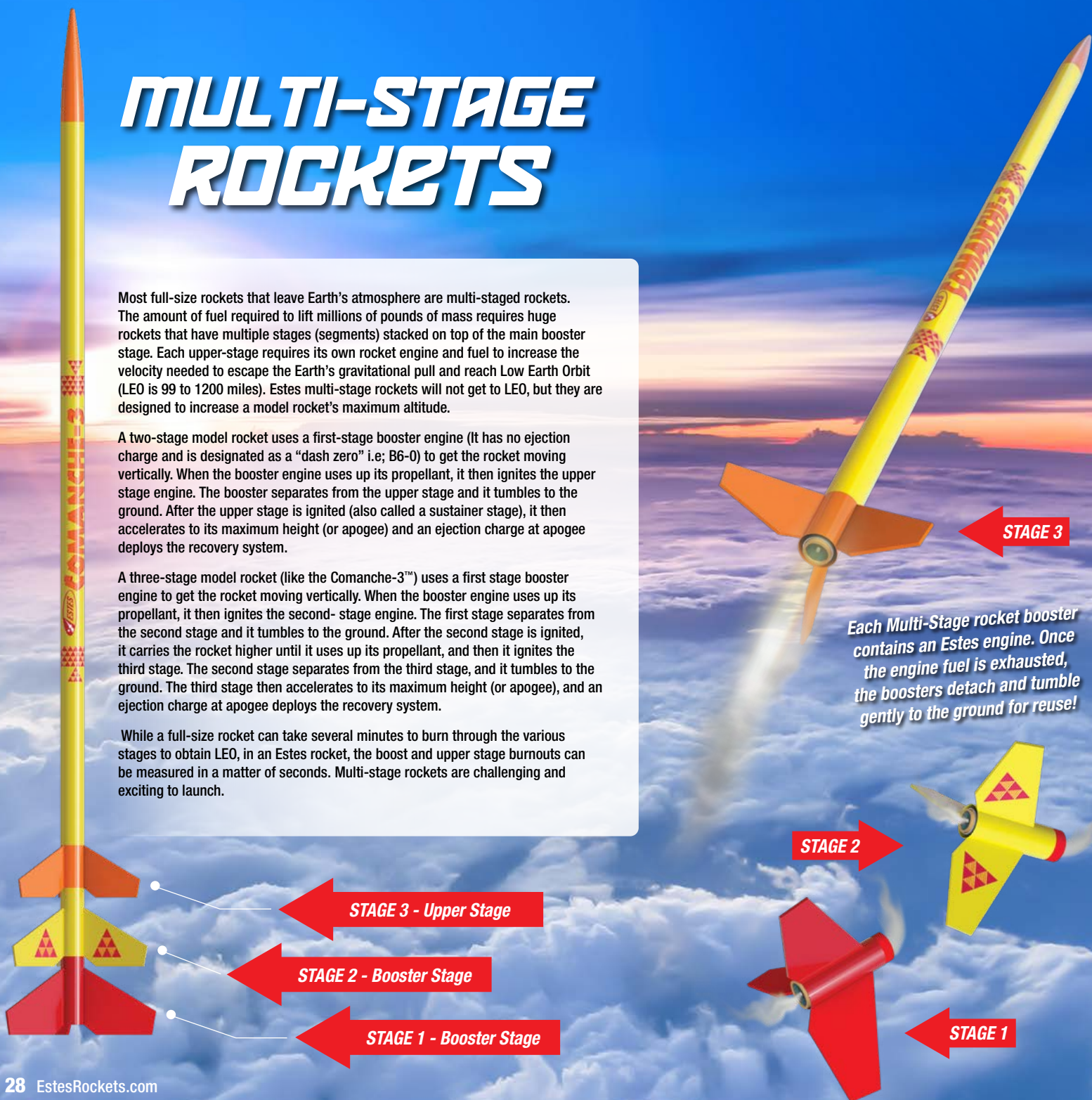
MULTI-STAGE ROCKETS

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 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 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 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.



STAGE 3 - Upper Stage

STAGE 2 - Booster Stage

STAGE 1 - Booster Stage

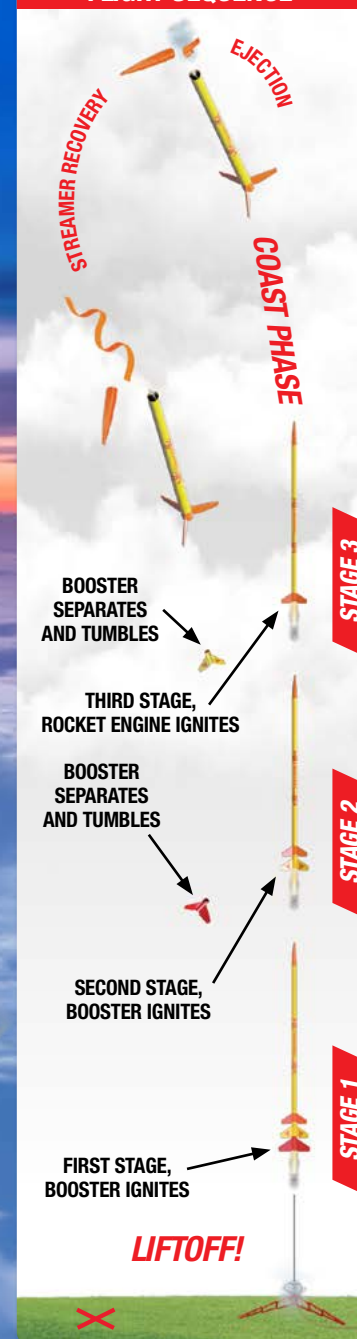
STAGE 3

Each Multi-Stage rocket booster contains an Estes engine. Once the engine fuel is exhausted, the boosters detach and tumble gently to the ground for reuse!

STAGE 2

STAGE 1

MULTI-STAGE ROCKET FLIGHT SEQUENCE





*Reach amazing
altitudes with this
high flying Multi-Stage
Rocket!*



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™

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: A-8, B6-0, C6-0

MSRP \$32.99



Twin Factor™

Product Number: 7250
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: 1/4 A3-3T, 1/2 A3-2T,
1/2 A3-4T, A3-4T, A10-3T, A10-PT
Booster: A10-0T

MSRP \$13.99



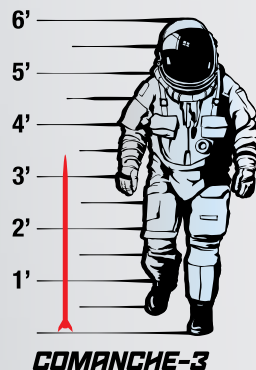
Note: Not to Scale
Enlarged for display purposes only.



Comanche-3™

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

MSRP \$25.99



COMANCHE-3

6 ways to fly!!
The Estes Multi-Roc is a two-stage, payload rocket that also features a glider recovery!



Multi-Roc™

Product Number: 1329
Length: 25 in. (63.5 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Parachute, Tumble, Glide
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 \$24.99



Checkmate™

Product Number: 7276
Length: 17 in. (43.2 cm)
Diameter: 0.74 in. (19 mm)
Recovery: Streamer, Tumble
Projected Altitude: 900 ft. (274 m)
Recommended Engines:
Rocket Only: A3-4T, A10-3T
Two Stages:
Rocket: 1/2 A3-4T, A3-4T, A10-3T
Booster: A10-0T

MSRP \$14.99



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.

The Solo & Double Ringer have unique cylindrical glider(s) that detach and circle back to earth!

Solo™

Product Number: 7288
Length: 25.3 in. (64.3 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute, Glide
Projected Altitude: 500 ft. (152 m)
Recommended Engines:
B6-2, C5-3, C6-3

MSRP \$21.99



Double Ringer™

Product Number: 7279
Length: 25.3 in. (64.3 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute, Glide
Projected Altitude: 500 ft. (152 m)
Recommended Engines:
B6-2, C5-3, C6-3

MSRP \$19.99

