



Flying Model
Rocket Catalog

2019



Featuring:

The Historic
50th
Anniversary
of the
SATURN V



ALDO SPADONI © 2017

**Welcome to the
exciting world
of model rocketry...**



TABLE OF CONTENTS

Model Rocket Basics	5	Model Rocket Engine Performance Chart	66
Get Started with Launch Sets	10	Engine Time/Thrust Curves	69
Easy to Build Beginner Rockets	18	Model Rocket Accessories	70
Challenge Yourself A Little More!	25	Altitude Tracking	76
Egg Launchers & Bertha Series	32	Estes Education	82
Multi-Stage Rockets	36	Bulk Packs for Education	84
Fun Recovery Rockets	42	Lifetime Launch System	90
Imagine New Worlds with Space Voyagers	46	Phantom Classroom Demonstrator Rocket	92
Scale Model Rockets	50	Rocket Science Starter Set	94
Saturn V Series Scale Model Rockets	58	Model Rocket Safety Code	96
Fly Big with Advanced Rockets	60	Index	98
Pro Series II	62		



... now this *is* rocket science!

There is no thrill quite like launching a model rocket you have built, watching it streak skyward, reaching apogee, then gently returning to earth on its parachute. 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 (see pages 10-17). Each launch 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.

Estes Industries encourages membership in the National Association of Rocketry for the active model rocketry enthusiast.





Hello!
From Penrose, Colo.

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:

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!

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

Since its creation by Vern and Gleda Estes 61 years ago, our company has made possible over 500 million rocket launches – with an amazing safety record.

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.

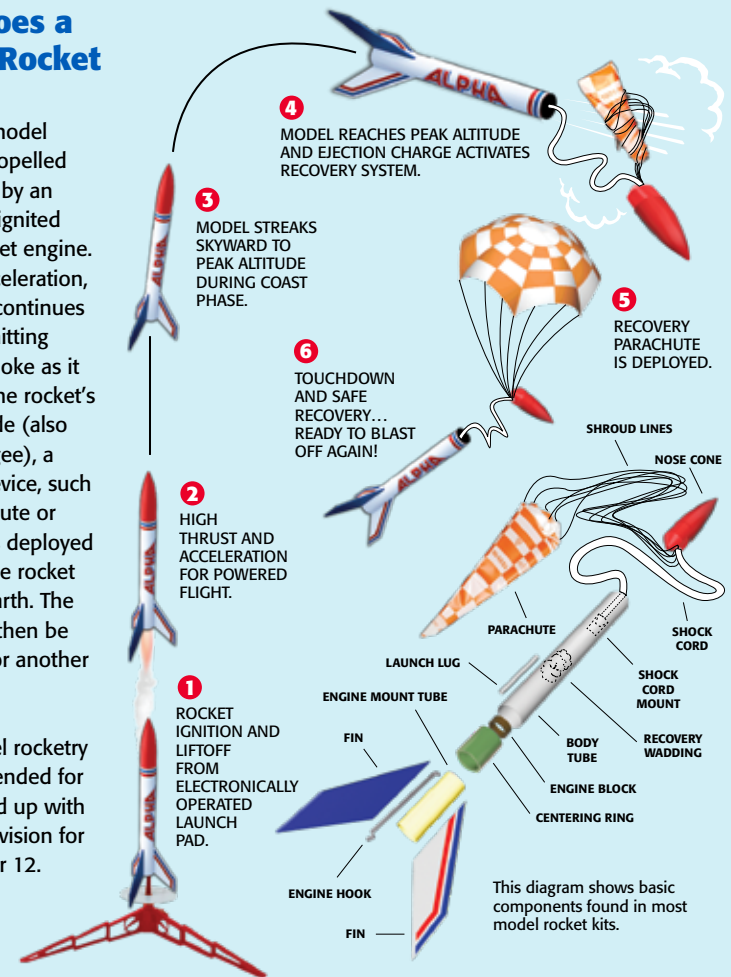


Vern and Gleda Estes, the founders of Estes Rockets.

Flight Sequence and Model Rocket Parts

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.



Estes model rocketry is recommended for ages 10 and up with adult supervision for those under 12.

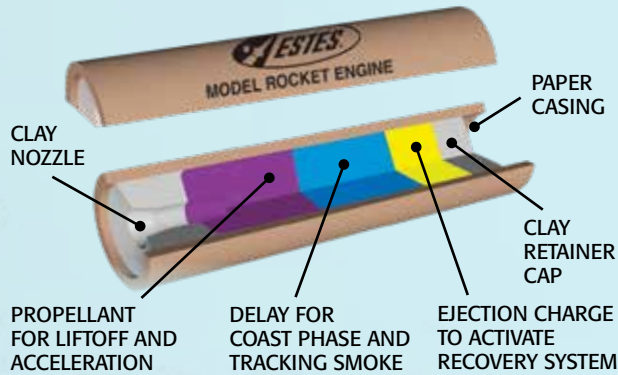
This diagram shows basic components found in most model rocket kits.



What is a Model Rocket Engine?

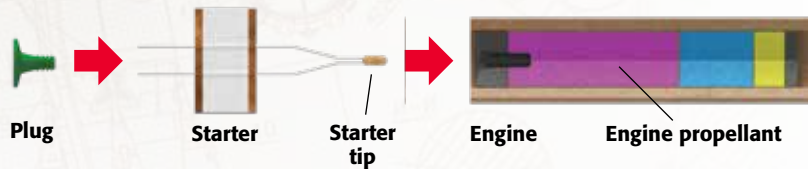
Estes model rocket engines are used to thrust a model rocket into the air. They are factory-assembled and comply with the code requirements of the National Association of Rocketry. They are single use and range in power from A to F sizes. The engine is started using an electrical launch system that is powered by alkaline batteries.

Components of a Model Rocket Engine

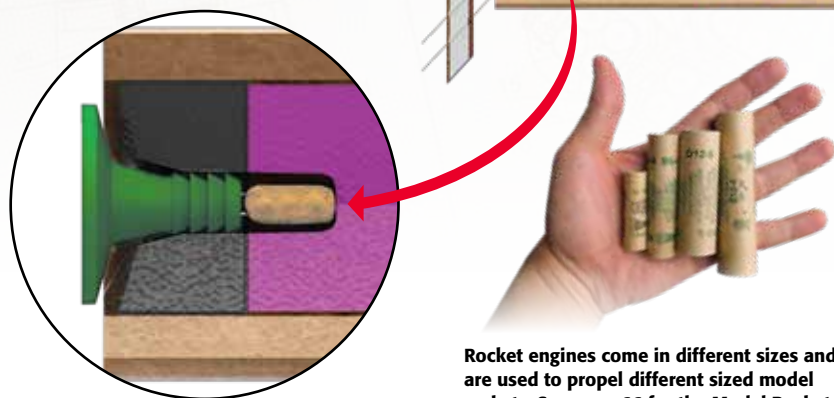


How to prepare your rocket engine for launch:

- 1 Use the plug to secure the starter into the nozzle of your rocket engine.



- 2 Make sure the starter is inserted into the engine nozzle and touches the propellant, then insert plug.



Rocket engines come in different sizes and are used to propel different sized model rockets. See page 66 for the Model Rocket Engine Performance Chart.

Different Engine Phases

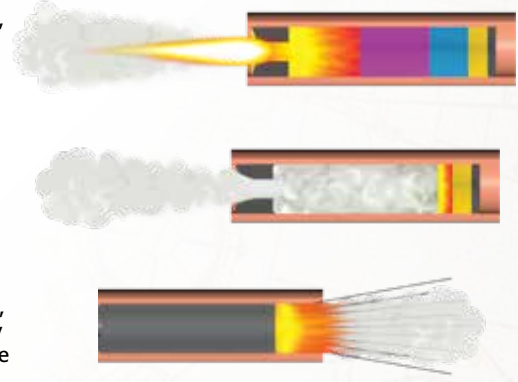
Thanks to the recovery system, you can enjoy the thrill of launching Estes rockets over and over. Every launch, however, requires a new engine as engines can be used only once.



Penrose, we have **Liftoff!**

How Does a Model Rocket Engine Work?

- 1 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.
- 3 After the delay is used, the ejection charge is activated, which deploys the recovery system, such as a parachute or streamer.



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" (page 96). 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 66-67) of this catalog for more information.



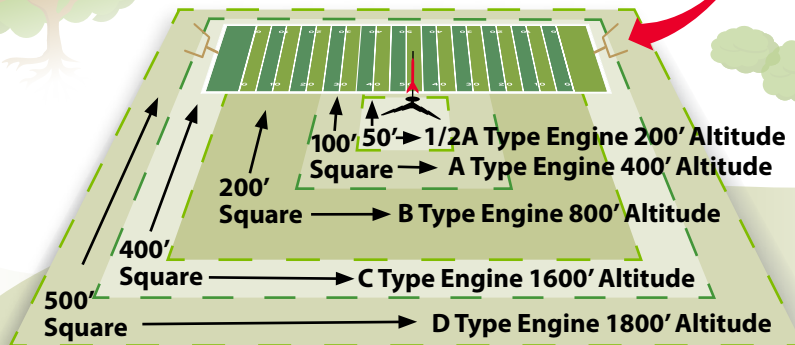
Launch Site Dimensions		
Installed Total Impulse (N-sec)	Equivalent Motor Type	Minimum Site Dimensions (ft.)
0.00 - 1.25	1/4A, 1/2A	50
1.26 - 2.50	A	100
2.51 - 5.00	B	200
5.01 - 10.00	C	400
10.01 - 20.00	D	500
20.01 - 40.00	E	1000
40.01 - 80.00	F	1000

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.

Size of an American football field.



- 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'll find detailed information about each rocket in it's description:

- Measurements: length, diameter and estimated weight
- Special features
- Recovery system: parachute, streamer, tumble, spin, glide, featherweight, and break-apart
- Projected altitudes: estimates only
- Recommended engines
- Building classification

Example of a Rocket Kit Description

2160 HiJinks™

- Length: 14.5 in. (36.8 cm)
- Diameter: 0.98 in. (25 mm)
- Estimated Weight: 1.5 oz. (43 g)
- Fins: Plastic
- Recovery: Parachute
- Projected Altitude: 1100 ft. (335 m)
- Recommended Engines: A8-3 for first launch; B4-4, B6-4, C6-5, C6-7



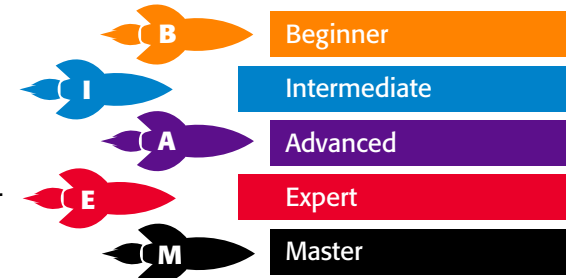
The HiJinks is a Beginner model rocket.



Building Classifications

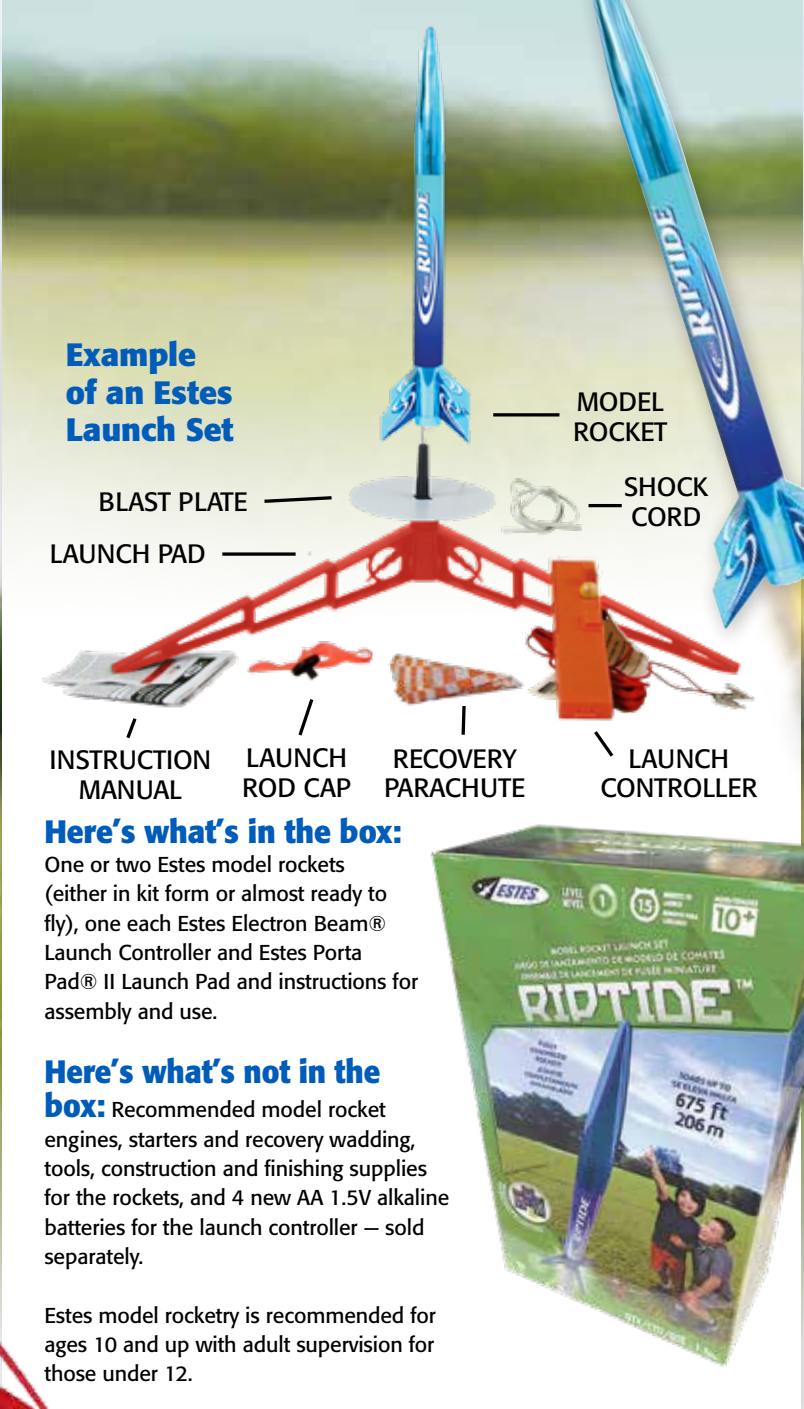


All model rocket kits in this catalog require assembly unless otherwise indicated. Building classifications are designated by a letter given to each kit.



Get started 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 of 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.



Example of an Estes Launch Set

- MODEL ROCKET
- SHOCK CORD
- BLAST PLATE
- LAUNCH PAD
- INSTRUCTION MANUAL
- LAUNCH ROD CAP
- RECOVERY PARACHUTE
- LAUNCH CONTROLLER

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 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.



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood

All Estes rockets that contain wood parts/components carry this warning.

Estes model rocketry is recommended for ages 10 and up with adult supervision for those under 12.

Start your Estes experience here!

The best way to start is with one of our launch sets.

1427 Alpha III® Launch Set

Length: 12.1 in. (30.7 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.2 oz. (34 g)
 Fins: Plastic
 Projected Altitude: 1150 ft. (351 m)
 Recovery: 12 in. (30.5 cm)
 Parachute
 Recommended Engines:
 A8-3 for first launch; 1/2A6-2,
 A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

\$35.99



The Alpha III & Taser launch sets are Estes best sellers!

1491 Taser™ Launch Set

Length: 17 in. (43.2 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.5 oz. (42.5 g)
 Fins: Plastic
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 1100 ft. (335 m)
 Recommended Engines: A8-3 for first launch; B4-4, B6-4, B6-6, C6-5, C6-7

\$28.99



1469 Tandem-X™ Launch Set
\$35.99

Crossfire ISX™

Length: 15.6 in. (39.6 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.3 oz. (37 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 1150 ft. (351 m)
 Recommended Engines:
 A8-3 for first launch; B4-4, B6-4, C6-5, C6-7



Some launch sets, like the Tandem-X, come equipped with two rockets!



Amazon™

Length: 29.4 in. (74.7 cm)
 Diameter: 1.33 in. (34 mm)
 Estimated Weight: 3 oz. (85 g)
 Fins: Plastic
 Recovery:
 18 in. (45.7 cm) Parachute
 Projected Altitude: 600 ft. (183 m)
 Recommended Engines: B4-2 for first launch; B4-4, B6-2, B6-4, C6-3, C6-5

The Whirlybird nose cone returns to earth via helicopter blades upon ejection.



1446 Whirlybird™ Launch Set

Length: 21.2 in. (53.8 cm)
 Diameter: 1.35 in. (34 mm)
 Estimated Weight: 2.9 oz. (82.2 g)
 Fins: Plastic
 Projected Altitude: 650 ft. (198 m)
 Recovery: 12 in. (30.5 cm) Parachute;
 Nose Cone - Spin
 Recommended Engines: C6-5
\$29.99



1478 Flash! Launch Set

Length: 16.2 in. (41.1 cm)
 Diameter: 1.1 in. (28 mm)
 Estimated Weight: 1.8 oz. (52 g)
 Recovery: 12 in. (30.5 cm) Parachute
 Fins: Plastic
 Projected Altitude: 925 ft. (282 m)
 Recommended Engines: A8-3 for first launch;
 B4-4, B6-4, C6-5, C6-7
\$28.99



The Zombie body tube comes with cool creepy art!



1435 Zombie™ Launch Set

Length: 19 in. (48.3 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.7 oz. (48.2 g)
 Fins: Plastic
 Projected Altitude: 1100 ft. (335 m)
 Recovery: 12 in. (30.5 cm) Parachute
 Recommended Engines:
 A8-3 for first launch; B4-4, B6-4,
 C6-5, C6-7
\$24.99



1436 Javelin™ Launch Set

Length: 15 in. (38 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.3 oz. (36.9 g)
 Fins: Plastic
 Projected Altitude: 600 ft. (183 m)
 Recovery: 12 in. (30.5 cm) Parachute, glide
 Recommended Engines: A8-3 for first launch;
 B4-4, B6-4
\$29.99



A lightweight glider separates from the Javelin and then glides softly to the ground.



The Flicker nose cone lights up with different colors ranging from yellow to blue to red!

1437 Flicker™ Launch Set

LIGHTS, CAMERA, ACTION! Well almost. LIGHTS anyway! The Flicker is unique among Estes rockets in that the nose cone lights up with various colors and patterns! Bright LEDs light up the sky! Comes with a 15 inch parachute for ease of recovery. So come on, what are you waiting for? Get your Flicker today and let's light up the sky!
 Length: 21 in. (53.3 cm)
 Diameter: 1.33 in. (34 mm)
 Estimated Weight: 3.2 oz. (90.7 g)
 Nose Cone: LED lights
 Fins: Plastic
 Projected Altitude: 650 ft. (198 m)
 Recovery: 15 in. (38.1 cm) Parachute
 Recommended Engines: B6-4 for first launch;
 C6-5
\$29.99



1499 Rascal™ & HiJinks™ Launch Set
\$35.99

Rascal™
 Length: 14.5 in. (36.8 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.5 oz. (43 g)
 Fins: Plastic
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 1100 ft. (335 m)
 Recommended Engines: A8-3 for first launch;
 B4-4, B6-4, C6-5, C6-7

**The Rascal
 & HiJinks
 Launch Set
 comes with two
 preassembled
 rockets!**



**1411 Journey™
 Launch Set**
 Length: 19.3 in. (49 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.8 oz. (51 g)
 Fins: Plastic
 Projected Altitude:
 1100 ft. (335 m)
 Recovery:
 12 in. (30.5 cm) Parachute
 Recommended Engines:
 A8-3 for first launch; B4-4,
 B6-4, C6-5, C6-7
\$32.99

1403 Riptide™ Launch Set
 Length: 18 in. (45.7 cm)
 Diameter: 1.35 in. (34 mm)
 Estimated Weight: 2.7 oz. (76.5 g)
 Fins: Plastic
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 675 ft. (206 m)
 Recommended Engines:
 B4-4 for first launch; B6-4, C6-5
\$37.99

**No
 assembly
 required!**



**This rocket
 transforms!
 The Wacky
 Wiggler goes
 up as a rocket
 and...**

**... comes down
 as a wiggly
 segmented
 recovery
 device!**



**1413 Wacky Wiggler™
 Launch Set**
 Length: 17.6 in. (44.7 cm)
 Diameter: 1.1 in. (28 mm)
 Estimated Weight:
 2.3 oz. (45.4 g)
 Fins: Plastic
 Recovery: Break-apart
 Projected Altitude:
 800 ft. (244 m)
 Recommended Engines:
 B6-4 for first launch; C6-5
\$29.99

HiJinks™
 Length: 14.5 in. (36.8 cm)
 Diameter:
 0.98 in. (25 mm)
 Estimated Weight:
 1.5 oz. (43 g)
 Fins: Plastic
 Recovery: 12 in. Parachute
 Projected Altitude:
 1100 ft. (335 m)
 Recommended Engines:
 A8-3 for first launch;
 B4-4, B6-4, C6-5, C6-7

1418 Flip Flyer™ Launch Set
 How could we make the amazing,
 dual-recovery Estes Flip Flyer™ even
 better? By packaging it with its own
 launch pad and launch controller,
 that's how!
 Length: 19.2 in. (48.8 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 3.2 oz. (90.7 g)
 Fins: Plastic
 Recovery:
 Rocket: Spin
 Nose cone:
 9 in. (23 cm) Parachute
 Projected Altitude: 750 ft. (229 m)
 Recommended Engines:
 B6-4 for first launch; C6-5
\$29.99

Add to your fleet!

Our easiest to build and fly rockets.

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: 12.1 in. (30.7 cm)

Diameter: 0.98 in. (25 mm)

Estimated Weight: 1.2 oz. (34 g)

Fins: Plastic

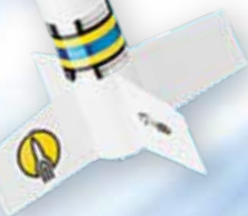
Recovery: 12 in. (30.5 cm) Parachute

Projected Altitude: 1150 ft. (351 m)

Recommended Engines:

A8-3 for first launch; 1/2A6-2, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

\$21.99



2008 Generic E2X®

Length: 13.5 in. (34.3 cm)

Diameter: 0.98 in. (25 mm)

Estimated Weight:

1.3 oz. (36.8 g)

Fins: Plastic

Recovery: 12 in. (30.5 cm)

Parachute

Projected Altitude:

1100 ft. (335 m)

Recommended Engines:

A8-3 for first launch; 1/2A6-2,

A8-5, B4-4, B6-4, B6-6, C6-5,

C6-7

\$12.99



2603 Sundancer™

Length: 16.5 in. (41.9 cm)

Diameter: 0.98 in. (25 mm)

Estimated Weight: 1.4 oz. (39.7 g)

Fins: Plastic

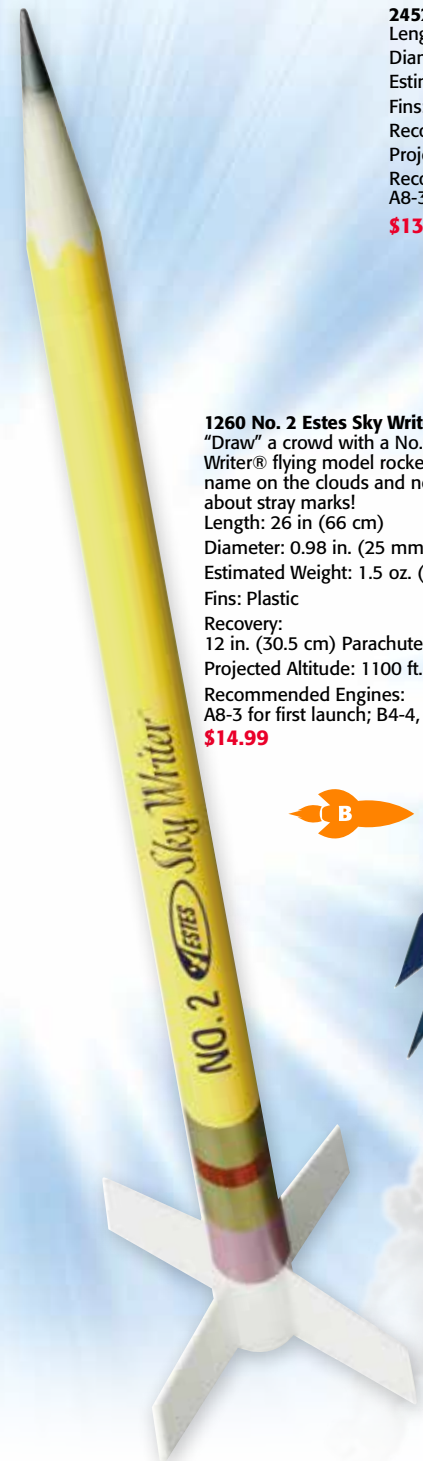
Recovery: 12 in. (30.5 cm) Parachute

Projected Altitude: 1100 ft. (335 m)

Recommended Engines:

A8-3 for first launch; B6-4, C6-5

\$13.99



1260 No. 2 Estes Sky Writer®

"Draw" a crowd with a No. 2 Estes Sky Writer® flying model rocket. Sign your name on the clouds and never worry about stray marks!

Length: 26 in. (66 cm)

Diameter: 0.98 in. (25 mm)

Estimated Weight: 1.5 oz. (42.5 g)

Fins: Plastic

Recovery:

12 in. (30.5 cm) Parachute

Projected Altitude: 1100 ft. (335 m)

Recommended Engines:

A8-3 for first launch; B4-4, B6-4, C6-5

\$14.99



2452 Athena™
 Length: 17 in. (43.2 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 1.4 oz. (39.7 g)
 Fins: Plastic
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 1125 ft. (343 m)
 Recommended Engines:
 A8-3 for first launch; B6-4, C6-5

\$13.99



No assembly required!



2433 Zinger™

Length: 15 in. (38.1 cm)

Diameter: 0.74 in. (19 mm)

Estimated Weight: 0.9 oz. (25.5 g)

Fins: Plastic

Recovery: 6 in. (15.2 cm) Parachute

Projected Altitude: 500 ft. (152 m)

Recommended Engines: 1/2A3-4T for first launch;

A3-4T, A10-3T

\$10.99



3
Rocket
set!

2435 3 Bandits™

3 rocket set
Length: 10.8-11.1 in. (27.4-28.2 cm)
Diameter: 0.74 in. (19 mm)
Estimated Weight: .6-.71 oz. (17-20.1 g)
Fins: Plastic
Recovery: 6 in. (15.2 cm) Parachute
Projected Altitude: 550 ft. (168 m)
Recommended Engines: 1/2A3-4T for first launch; A3-4T, A10-3T

\$23.99

B



0804 Firehawk™

Length: 11.2 in. (28.4 cm)
Diameter: 0.74 in. (19 mm)
Estimated Weight: 0.65 oz. (18.4 g)
Fins: Plastic
Recovery:
6 in. (15.2 cm) Parachute
Projected Altitude: 550 ft. (168 m)
Recommended Engines:
1/4A3-3T for first launch;
1/2A3-2T, A3-4T, A10-3T

\$10.99

B



2492 Spirit™

Length: 21 in. (53.3 cm)
Diameter: 1.33 in. (34 mm)
Estimated Weight: 3.1 oz. (87.9 g)
Fins: Plastic
Recovery:
15 in. (38.1 cm) Parachute
Projected Altitude: 600 ft. (183 m)
Recommended Engines: B6-4 for first launch; B6-2, C6-3, C6-5

\$17.99

B



0806 Firestreak SST™

Length: 10.2 in. (25.9 cm)
Diameter: 0.86 in. (22 mm)
Estimated Weight: 1.1 oz. (31.2 g)
Fins: Plastic
Recovery: 12 in. (30.5 cm) Streamer
Projected Altitude: 350 ft. (107 m)
Recommended Engines: A3-4T for first launch;
1/2A3-2T, 1/2A3-4T, A10-3T

\$10.99

B

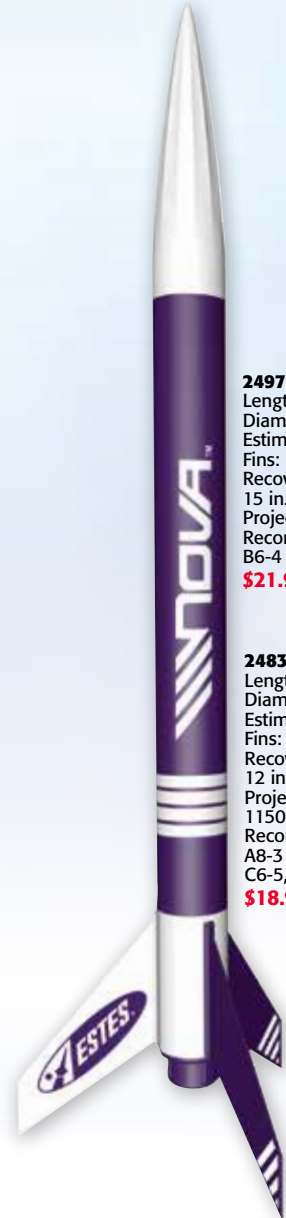


2497 Nova™

Length: 20.6 in. (52.3 cm)
Diameter: 1.33 in. (34 mm)
Estimated Weight: 2.5 oz. (70.9 g)
Fins: Plastic
Recovery:
15 in. (38.1 cm) Parachute
Projected Altitude: 700 ft. (213 m)
Recommended Engines:
B6-4 for first launch; B6-2, C6-3, C6-5

\$21.99

B

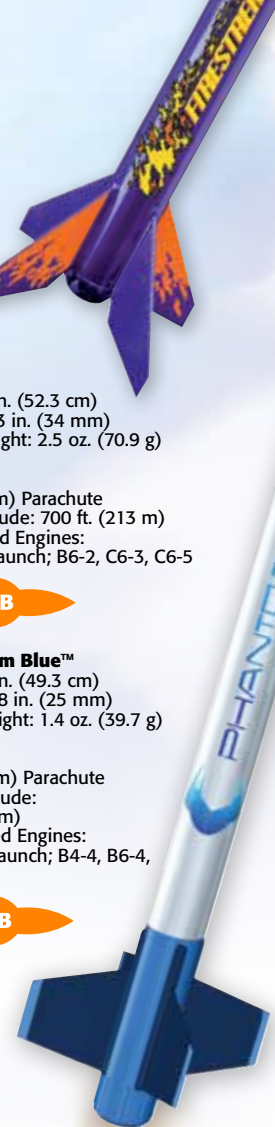


2483 Phantom Blue™

Length: 19.4 in. (49.3 cm)
Diameter: 0.98 in. (25 mm)
Estimated Weight: 1.4 oz. (39.7 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude:
1150 ft. (351 m)
Recommended Engines:
A8-3 for first launch; B4-4, B6-4,
C6-5, C6-7

\$18.99

B



2169 Dragonite™

Length: 16 in. (40.6 cm)
Diameter: 1.1 in. (28 mm)
Estimated Weight: 1.8 oz. (51 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude: 1125 ft. (343 m)
Recommended Engines: A8-3 for first launch; B4-4, B6-4, C6-5, C6-7

\$16.99

B



**Our highest-powered
beginner rocket!**

2466 Show Stopper™

Length: 26.2 in. (66.5 cm)
Diameter: 1.64 in. (42 mm)
Estimated Weight: 4 oz. (113.4 g)
Fins: Plastic
Recovery: 15 in. (38.1 cm) Parachute
Projected Altitude:
875 ft. (267 m)
Recommended Engines:
C11-3 for first launch;
C11-5, D12-5, D12-7

\$25.99



0803 Bandito™

Length: 11.2 in. (28.4 cm)
Diameter: 0.74 in. (19 mm)
Estimated Weight: 0.60 oz. (17 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude: 600 ft. (183 m)
Recommended Engines:
1/4A3-3T for first launch;
1/2A3-2T, A3-4T, A10-3T

\$10.99



2490 Fractured™

Length: 18 in. (45.7 cm)
Diameter: 1.64 in. (42 mm)
Estimated Weight: 3.7 oz. (104.9 g)
Fins: Plastic
Recovery:
15 in. (38.1 cm) Parachute
Projected Altitude:
550 ft. (168 m)
Recommended Engines:
B6-2 for first launch; B4-2,
C6-3, C6-5

\$16.99



2494 Dazzler™

Length: 17.5 in. (44.5 cm)
Diameter: 0.98 in. (25 mm)
Estimated Weight:
1.5 oz. (30.5 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude:
1125 ft. (343 m)
Recommended Engines:
A8-3 for first launch; B4-4,
B6-4, C6-5, C6-7

\$16.99



7277 Galaxy Glow™

Length: 19.6 in. (49.8 cm)
Diameter: 0.98 in. (25 mm)
Estimated Weight:
1.6 oz. (45.4 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude:
1100 ft. (335 m)
Recommended Engines: A8-3
for first launch; B4-4, B6-4,
B6-6, C6-5, C6-7

\$14.99



2482 Solaris™

Length: 18.5 in. (47 cm)
Diameter: 0.98 in. (25 mm)
Estimated Weight: 1.6 oz. (45.4 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude:
1125 ft. (343 m)
Recommended Engines: A8-3 for
first launch; B4-4, B6-4, C6-5, C6-7

\$18.99



2495 Chiller™

Length: 19.4 in. (49.3 cm)
Diameter: 1.33 in. (34 mm)
Estimated Weight: 2.7 oz. (76.5 g)
Fins: Plastic
Recovery:
15 in. (38.1 cm) Parachute
Projected Altitude:
600 ft. (183 m)
Recommended Engines:
B6-4 for first launch; B4-2, B6-2,
C6-3, C6-5

\$18.99



2481 Power Patrol™

Length: 20.5 in. (52.1 cm)
Diameter: 0.98 in. (25 mm)
Estimated Weight: 1.6 oz. (45.4 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude: 1100 ft. (335 m)
Recommended Engines: A8-3 for first launch; B4-4, B6-4, C6-5, C6-7

\$18.99



A clear payload section is a feature that allows the rocketeer to view cargo!

2498 Rookie™

Length: 23.3 in. (59.2 cm)
Diameter: 1.64 in. (42 mm)
Estimated Weight: 3.6 oz. (102 g)
Fins: Plastic
Recovery:
15 in. (38.1 cm) Parachute
Projected Altitude: 550 ft. (168 m)
Recommended Engines:
B6-2 for first launch; C6-3, C6-5

\$16.99



7261 Air Walker™

Length: 21.7 in. (55.1 cm)
Diameter: 1.1 in. (28 mm)
Estimated Weight: 2 oz. (56.7 g)
Fins: Plastic
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude: 950 ft. (290 m)
Recommended Engines:
B6-4 for first launch; B4-4, C6-5

\$18.99



Challenge yourself a little more!

These rockets take more time to build.

1345 Mosquito™

Length: 3.8 in. (9.6 cm)
Diameter: 0.54 in. (14 mm)
Estimated Weight: 0.11 oz. (3.1 g)
Fins: Laser cut wood
Recovery: Featherweight
Projected Altitude: 800 ft. (244 m)
Recommended Engines:
1/4A3-3T for first launch;
1/2A3-2T, 1/2A3-4T, A3-4T, A10-3T

\$6.99



1225 Alpha®

Length: 12.3 in. (31.2 cm)
Diameter: 0.98 in. (25 mm)
Estimated Weight: 0.8 oz. (22.7 g)
Fins: Laser cut wood
Recovery:
12 in. (30.5 cm) Parachute
Projected Altitude: 1000 ft. (305 m)
Recommended Engines: A8-3 for first launch; 1/2A6-2, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

\$18.99



2178 Hi-Flier®

Length: 12 in. (30.5 cm)
Diameter: 0.74 in. (19 mm)
Estimated Weight: .9 oz. (25.5 g)
Fins: Laser cut wood
Recovery: 12 in. (30.5) Streamer
Projected Altitude: 1500 ft. (457 m)
Recommended Engines:
A8-3 for first launch; 1/2A6-2, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

\$11.99



3031 Star Trooper™

Length: 7 in. (17.8 cm)
Diameter: 0.54 in. (14 mm)
Estimated Weight: 0.3 oz. (8.5 g)
Fins: Laser cut wood
Recovery: 6 in. (15.2 cm) Streamer
Projected Altitude: 900 ft. (274 m)
Recommended Engines: 1/2A3-4T for first launch; 1/4A3-3T, A3-4T, A10-3T

\$6.99



Swift flight sequence



The 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!

0810 220 Swift™

Length: 4.5 in. (11.4 cm)
 Diameter: 0.54 in. (14 mm)
 Estimated Weight: .09 oz. (2.5 g)
 Fins: Laser cut wood
 Recovery: Featherweight
 Projected Altitude: 850 ft. (259 m)
 Recommended Engines:
 1/4A3-3T for first launch; 1/2A3-2T,
 1/2A3-4T, A3-4T, A10-3T

\$9.99



7220 7220 Crossfire ISX™

Length:
 15.6 in. (39.6 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight:
 1.3 oz. (37 g)
 Fins: Laser cut wood
 Recovery:
 12 in. (30.5 cm) Parachute
 Projected Altitude:
 1150 ft. (351 m)
 Recommended Engines:
 A8-3 for first launch;
 B4-4, B6-4, C6-5, C6-7

\$13.99



1381 Yankee™

Length: 11 in. (27.9 cm)
 Diameter: 0.74 in. (19 mm)
 Estimated Weight: 0.4 oz. (12 g)
 Fins: Laser cut wood
 Recovery: 18 in. (45.7 cm) Streamer
 Projected Altitude: 1700 ft. (518 m)
 Recommended Engines:
 A8-3 for first launch; 1/2A6-2, A8-5,
 B4-4, B6-4, B6-6, C6-5, C6-7

\$13.99



1292 Wizard™

Length: 12 in. (30.5 cm)
 Diameter: 0.74 in. (19 mm)
 Estimated Weight: 0.5 oz. (14.2 g)
 Fins: Laser cut wood
 Recovery: 18 in. (45.7 cm) Streamer
 Projected Altitude: 1600 ft. (488 m)
 Recommended Engines:
 A8-3 for first launch; 1/2A6-2, A8-5,
 B4-4, B6-4, B6-6, C6-5, C6-7

\$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!



1949 Viking™

Length: 12.1 in. (30.7 cm)
 Diameter: 0.74 in. (19 mm)
 Estimated Weight: 0.6 oz. (17 g)
 Fins: Cardstock
 Recovery: 18 in. (45.7 cm) Streamer
 Projected Altitude: 1600 ft. (488 m)
 Recommended Engines:
 A8-3 for first launch;
 1/2A6-2, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

\$13.99



0651 Der Red Max™

Length: 16.3 in. (41.4 cm)
 Diameter: 1.64 in. (42 mm)
 Estimated Weight: 2.4 oz. (68 g)
 Fins: Laser cut wood
 Recovery: 18 in. (45.7 cm) Parachute
 Projected Altitude: 600 ft. (183 m)
 Recommended Engines:
 B6-2 for first launch; B4-2, B4-4, B6-4, C6-5

\$19.99



Hex-3 flight sequence



7263 Hex-3™

Length: 3.2 in. (8.1 cm)
 Diameter: Hub: 3.8 in. (9.6 cm)
 Overall Diameter: 11.5 in. (29.2 cm)
 Estimated Weight: 0.6 oz. (17 g)
 Fins: Printed cardstock
 Recovery: Tumble
 Projected Altitude: 100 ft. (30 m)
 Recommended Engines: B6-0
 for first launch; C6-0

\$8.99



The Hex-3 is constructed with cardstock which makes for a lightweight tumble recovery that requires no parachute. Enjoy launching it over and over again!



0652 Citation Patriot™
 Length: 25.6 in. (65 cm)
 Diameter: 1.64 in. (42 mm)
 Estimated Weight: 3.2 oz. (90.7 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 600 ft. (183 m)
 Recommended Engines:
 B4-2 for first launch; B6-4, C6-5
\$26.99



Originally released in 1972, the Citation Patriot is a true Estes classic!



7244 Indicator™
 Length: 21.2 in. (53.8 cm)
 Diameter:
 Top 0.74 in. (19 mm)
 Bottom: 0.98 in. (25 mm)
 Estimated Weight:
 1.3 oz. (36.9 g)
 Fins: Laser cut wood
 Recovery: 9 in. (22.9 cm) Parachute
 Projected Altitude:
 200 ft. (61 m)
 Recommended Engines:
 A3-4T for first launch; A10-3T
\$16.99



7258 Space Twister™
 Length: 24.7 in. (62.7 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight:
 1.5 oz. (42.5 g)
 Fins: Laser cut wood
 Recovery:
 12 in. (30.5 cm) Parachute
 Projected Altitude:
 900 ft. (274 m)
 Recommended Engines:
 A8-3 for first launch; B6-4, C6-5
\$17.99



The Space Twister fin configuration allows it to spin as it goes up.



7238 Sequoia™
 Length: 20 in. (50.8 cm)
 Diameter: 0.74 in. (19 mm)
 Estimated Weight: 1.1 oz. (31.2 g)
 Fins: Laser cut wood
 Recovery: 9 in. (22.9 cm) Parachute
 Projected Altitude: 350 ft. (107 m)
 Recommended Engines: A3-4T for first launch; A10-3T
\$14.99



7242 Super Neon™
 Length: 22.3 in. (56.6 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight:
 1.9 oz. (53.9 g)
 Fins: Laser cut wood
 Recovery:
 12 in. (30.5 cm) Parachute
 Projected Altitude:
 1000 ft. (305 m)
 Recommended Engines:
 A8-3 for first launch; B4-4, B6-4, C6-5
\$19.99



2442 Mini Fat Boy™
 Length: 8.5 in. (21.6 cm)
 Diameter: 1.64 in. (42 mm)
 Estimated Weight: 1.3 oz. (36.8 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 250 ft. (76 m)
 Recommended Engines: A10-3T
\$13.99



7237 Goblin™
 Length: 14.4 in. (36.6 cm)
 Diameter: 1.33 in. (34 mm)
 Estimated Weight: 2.5 oz. (70.9 g)
 Fins: Laser cut wood
 Recovery:
 2x 36 in. (91.3 cm) Streamers
 Projected Altitude:
 1400 ft. (427 m)
 Recommended Engines:
 D12-5 for first launch; C11-3, C11-5, D12-7
\$19.99



7239 Sky Warrior™

Length: 19 in. (48.3 cm)
 Diameter: 1.33 in. (34 mm)
 Estimated Weight: 1.9 oz. (53.9 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 850 ft. (259 m)
 Recommended Engines: B6-4 for first launch; C6-5

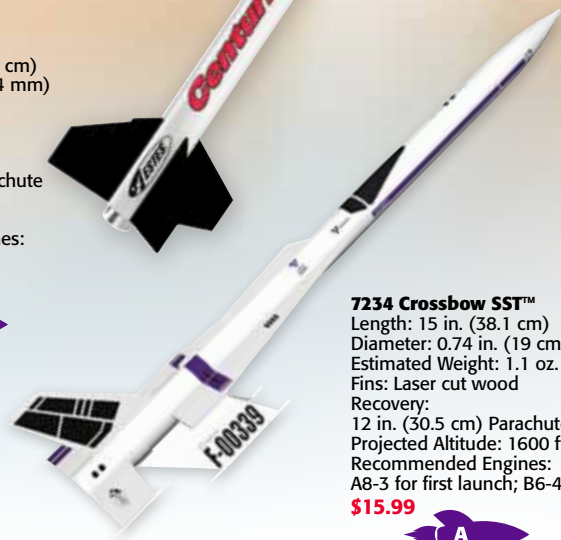
\$20.99



3232 Centuri®

Length: 29.3 in. (74.4 cm)
 Diameter: 1.33 in. (34 mm)
 Estimated Weight: 3.1 oz. (87.9 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 600 ft. (183 m)
 Recommended Engines: B4-4 for first launch; B6-4, C6-5

\$21.99



7234 Crossbow SST™

Length: 15 in. (38.1 cm)
 Diameter: 0.74 in. (19 cm)
 Estimated Weight: 1.1 oz. (31.2 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 1600 ft. (488 m)
 Recommended Engines: A8-3 for first launch; B6-4, C6-5

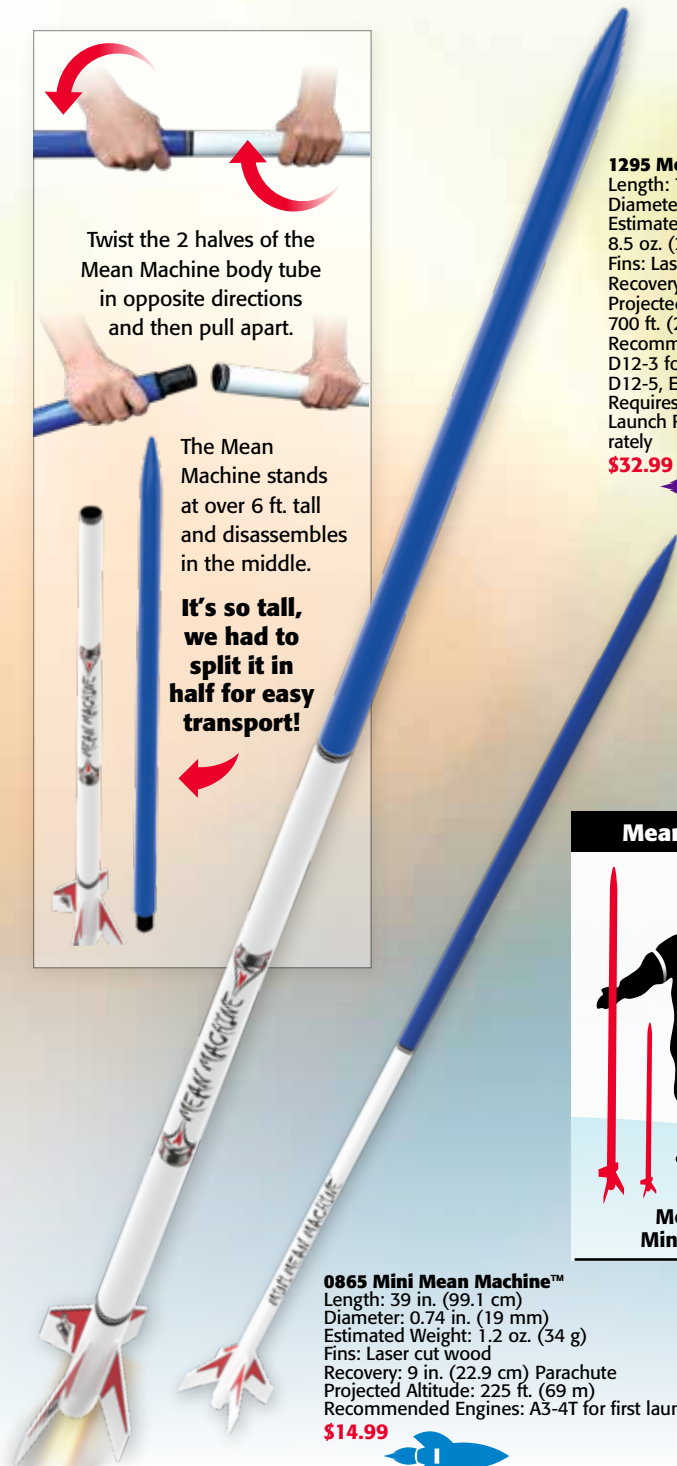
\$15.99



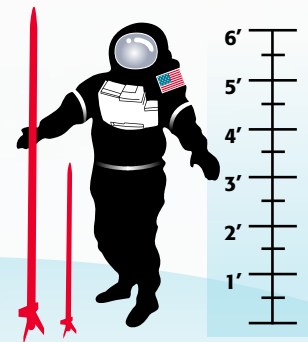
1295 Mean Machine™

Length: 79 in. (200.7 cm)
 Diameter: 1.64 in. (42 mm)
 Estimated Weight: 8.5 oz. (241 g)
 Fins: Laser cut wood
 Recovery: 24 in. (61 cm) Parachute
 Projected Altitude: 700 ft. (213 m)
 Recommended Engines: D12-3 for first launch; D12-5, E12-4, E12-6
 Requires 3/16 in. (5 mm) Maxi™ Launch Rod PN 2244; sold separately

\$32.99



Mean Machine Sizes



0865 Mini Mean Machine™

Length: 39 in. (99.1 cm)
 Diameter: 0.74 in. (19 mm)
 Estimated Weight: 1.2 oz. (34 g)
 Fins: Laser cut wood
 Recovery: 9 in. (22.9 cm) Parachute
 Projected Altitude: 225 ft. (69 m)
 Recommended Engines: A3-4T for first launch; A10-3T

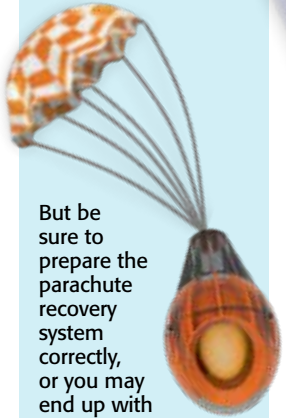
\$14.99



Hurl an egg at the high heavens



After assembling your EggsCaliber and Space Crater rocket nose cones, insert an egg into the payload 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!



2123 EggsCaliber™
 Length: 20 in. (50.8 cm)
 Diameter: 1 in. (25 mm)
 Estimated Weight: (without egg): 2.6 oz. (74 g)
 Fins: Laser cut wood
 Recovery:
 1x 12 in. (30.5 cm) Parachute,
 1x 18 in. (45.7 cm) Parachute
 Projected Altitude: 1700 ft. (518 m) without egg
 Recommended Engines: With egg: B6-2 for first launch; C6-3, C11-3, D12-3, E9-4;
 Without egg: B4-2 for first launch;
 B6-2, C6-5, D12-5
 Requires 3/16 in. (5 mm) Maxi™ Launch Rod PN 2244; sold separately

\$25.99



Become an eggspert rocketeer!



7265 Space Crater™
 Length: 18.5 in. (47 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 2.6 oz. (72.7 g)
 Fins: Plastic
 Recovery: 15 in. (38.1 cm) Parachute
 Projected Altitude: 650 ft. (198 m)
 Recommended Engines: Without egg:
 B6-4 for first launch; C6-5. With egg:
 C6-3

\$22.99



9719 Super Big Bertha™
 Length: 36.8 in. (93.4 cm)
 Diameter: 2.6 in. (66 mm)
 Estimated Weight: 8.9 oz. (252.3 g)
 Fins: Laser cut wood
 Recovery: 24 in. (61 cm) Parachute
 Projected Altitude: 1200 ft. (366 m)
 Recommended Engines:
 E16-4 for first launch; F15-6
 NOTE: This rocket can also be launched on a D12-3 engine when you purchase PN 9753 - 24 mm to 29 mm Engine Adapter.

\$39.99



1261 Baby Bertha™
 Length: 12.8 in. (32.5 cm)
 Diameter: 1.64 in. (42 mm)
 Estimated Weight: 1.9 oz. (53.9 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 575 ft. (175 m)
 Recommended Engines:
 A8-3 for first launch; B4-4, B6-4, C6-5

\$14.99

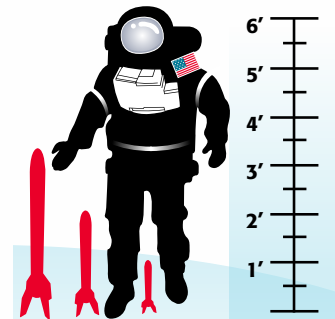


1948 Big Bertha™
 Length: 24 in. (61 cm)
 Diameter: 1.64 in. (42 mm)
 Estimated Weight: 2.5 oz. (71 g)
 Fins: Laser cut wood
 Recovery: 18 in. (45.7 cm) Parachute
 Projected Altitude: 500 ft. (152 m)
 Recommended Engines:
 B6-4 for first launch; B4-2, B4-4, B6-2, C6-5

\$26.99



Bertha Rocket Sizes



Super Big Bertha, Big Bertha & Baby Bertha



7246 Estes Shuttle™
 Length: 23.2 in. (58.9 cm)
 Diameter: 2.6 in. (66 mm)
 Estimated Weight: 9.5 oz. (269.3 g)
 Shuttle length: 12.2 in (31 cm)
 Shuttle wingspan: 8.9 in. (22.6 cm)
 Fins: Laser cut wood
 Recovery: 24 in. (61 cm) Parachute, glide
 Projected Altitude: 500 ft. (152 m)
 Recommended Engines:
 D12-3 for first launch; E12-4
 Requires 3/16 in. (5 mm) Maxi™ Launch Rod PN 2244; sold separately
\$53.99



7257 Airborne Surveillance Missile
 The Estes Airborne Surveillance Missile packs a lot into a small package! Great flights on Estes mini-engines (not included)! You'll enjoy building this highly detailed, scale-like military missile.
 Length: 11.3 in. (28.7 cm)
 Diameter: 0.98 in. (25 mm)
 Estimated Weight: 0.9 oz (26 g)
 Fins: Laser cut wood
 Recovery: 9 in. (22.9 cm) Parachute
 Projected Altitude: 375 ft (114 m)
 Recommended Engines:
 A3-4T for first launch; A10-3T
\$16.99



7266 Red Nova™
 The scale-like Estes Red Nova™ is impressive up close and in the sky! Great decals complete the scale-look. You'd swear it was real!
 Length: 21.6 in. (54.9 cm)
 Diameter: 1.64 in. (42 mm)
 Estimated Weight: 3 oz. (85 g)
 Fins: Laser cut wood
 Recovery: 15 in. (38.1 cm)
 Parachute
 Projected Altitude: 800 ft. (244 m)
 Recommended Engines:
 D12-5 for first launch; D12-7
 Requires 3/16 in. (5 mm) Maxi™ Launch Rod PN 2244; sold separately.
\$21.99



7000 Bull Pup 12D
1:9 Scale
 A great flier, the authentic-looking Estes Bull Pup 12D is a sport-scale replica of the Air Force air-to-ground missile used throughout the 1960s.
 Length: 15.6 in. (39.6 cm)
 Diameter: 1.33 in. (34 mm)
 Estimated Weight: 1.8 oz. (51 g)
 Fins: Laser cut wood
 Recovery: 12 in. (30.5 cm) Parachute
 Projected Altitude: 675 ft. (206 m)
 Recommended Engines:
 A8-3 for first launch; B4-4, B6-4, C6-5
\$20.99



7259 Nike-X
 Length: 23.4 in. (59.4 cm)
 Diameter: 1.33 in. (34 mm)
 Estimated Weight: 2.4 oz. (68 g)
 Fins: Laser cut wood
 Recovery: 15 in. (38.1 cm)
 Parachute
 Projected Altitude: 600 ft. (183 m)
 Recommended Engines:
 B6-4 for first launch; C6-5
\$21.99

