

2005
ESTES
CATALOG



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estes
rockets
.com

NO CHARGE

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HOW DO I START MY OWN ESTES ROCKET FLEET?

The best way to begin model rocketry is with an Estes flying model rocket starter set. You can either start with a Ready To Fly Starter Set that has a fully constructed model rocket or an E2X® Starter Set that requires assembly prior to launching. Both types of sets come complete with an electrical launch controller, adjustable launch pad, engines, flight supplies and an information booklet to get you out and flying in no time. You'll need four "AA" alkaline batteries and perhaps glue, depending on which set you select.

HOW EASY AND HOW MUCH TIME DOES IT TAKE TO BUILD MY ROCKETS?

Estes model rocket kits range from ready to fly in just minutes to those that provide many enjoyable hours of building fun. Estes kits are classified into six categories.

READY TO FLY (RTF): No paint, glue or modeling skills required. Rocket comes assembled and is ready for liftoff in just minutes.

E2X® ROCKET KITS: No paint or special tools needed. E2X® kits contain parts that are colored and easy to assemble. Simply glue the parts together as per the instructions, apply the self-adhesive decals, attach the recovery system and you are ready to blast off! Assembly takes as little as 1 hour.

SKILL LEVEL 1 ROCKET KITS: Requires some painting, gluing and sanding. Features die cut balsa fins, slotted body tubes, plastic nose cones and self-adhesive decals. Step by step instructions make building very easy. Assembly takes at least an afternoon.

SKILL LEVEL 2 ROCKET KITS: First tier of more advanced kits. Requires beginner skills in model rocket construction and finishing. Features die cut balsa or plastic fins, plastic nose cones and unfinished body tubes. Assembly time may take a complete day.

SKILL LEVEL 3 ROCKET KITS: Second tier of more advanced kits. Requires moderate skills in model rocket construction and finishing. Features multiple die cut balsa fins and parts, unfinished body tubes, complex designs and plastic nose cones. Assembly time may take a couple of days.

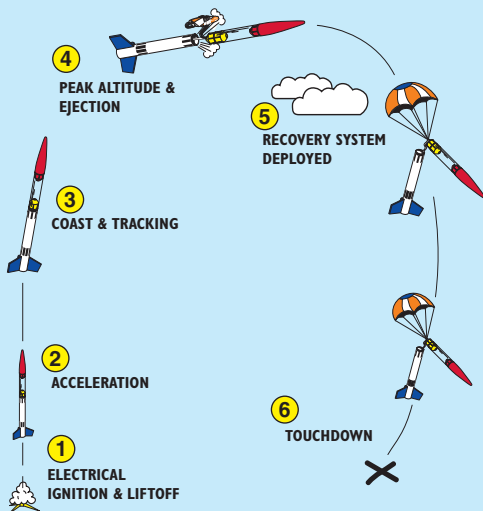
SKILL LEVEL 4 ROCKET KITS: The most advanced kit level. Requires high degree of model rocket construction and finishing skills. Features multiple die cut balsa parts, vacuum formed plastic detailing, unfinished body tubes and water soluble decals. Assembly can take several days depending on detail required.

HOW DO ESTES MODEL ROCKETS WORK?

Estes model rockets are activity kits designed of lightweight materials such as paper tubing, balsa wood and plastic. Balsa or plastic fins are glued to the body tube for guidance and stability. A model rocket engine holder is also part of the rocket to keep the engine in place during thrust.

Estes was the first to develop a mass-produced model rocket engine and has produced the engines for over 45 years. 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 plastic parachute or streamer, is deployed to return the rocket gently to earth. The rocket can then be prepared for another flight.

FLIGHT SEQUENCE



WHERE DO I FLY ESTES MODEL ROCKETS?

The chart on page 5 tells you what size field to use for each size engine. 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 29-31) of this catalog for more information.

HOW DID IT ALL GET STARTED?

In the mid-1950's when the space age began, flying rockets became very popular. However, there were no safe propellants readily available to launch rockets. In 1958 Vernon Estes developed the first safe mass-produced model rocket engine. The Estes rocket engine was destined to make model rocketry one of the most popular outdoor activities enjoyed today. Estes products have changed with the times and you can see all the exciting rockets, planes and specialty items in this catalog or on the web @ www.estesrockets.com.

WHAT DO I NEED TO KNOW?

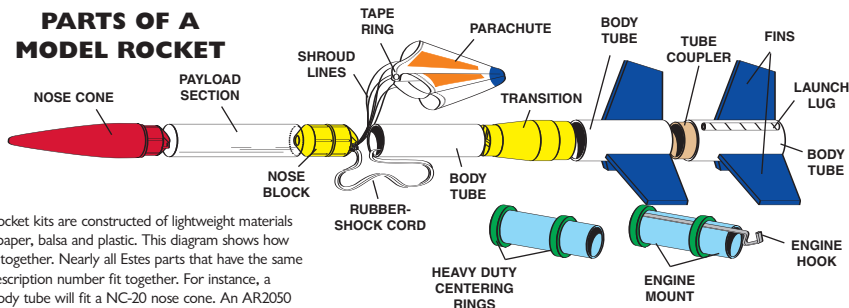
In this catalog, each description lists important INFORMATION:

- Something fun about the rocket.
- Specifications - how tall, wide and heavy.
- What engines we recommend.
- How high, on the largest engine recommended, the rocket flies (in feet and in meters).
Maximum altitudes are projections only, your rocket's actual performance may vary.
- The sort of recovery system that brings the rocket back - parachute, streamer or other.
- The type of fin material - plastic, balsa or card stock.

ROCKET TIP!

In most cases, baseball, soccer or football fields are great launch areas!

Remember - Estes model rocket kits offer you a wide spectrum of building and flying. Best of all, they are all fun!



Model rocket kits are constructed of lightweight materials such as paper, balsa and plastic. This diagram shows how parts fit together. Nearly all Estes parts that have the same series description number fit together. For instance, a BT-20 body tube will fit a NC-20 nose cone. An AR2050 centering ring will center a BT-20 into a BT-50.

PLEASE READ: IMPORTANT STUFF!

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age. Unless otherwise specified all models require assembly. Engines, launch system, glue and finishing supplies are not included with model rocket kits unless specified otherwise.

USE ONLY WITH ESTES PRODUCTS

Caution: Use of any Estes product with any other brand-name rocket product containing any defect or causing any damage may void the Estes warranty.



ESTES WARRANTY

Your Estes product is warranted against defects in materials or workmanship for a period from the date of original purchase. Any Estes product, which, because of a manufacturing mistake, malfunctions or proves to be defective within the period noted in the warranty provided with the product will be repaired or replaced, at Estes' option and at no charge to you, provided it is returned to Estes with proof of purchase.

This warranty does not cover incidental or consequential damage to persons or property caused by the use, abuse, misuse, failure to comply with operating instructions or improper storage of the warranted products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

For repair or replacement under this warranty, please return the defective part of your Estes product with proof of purchase to: Estes Industries, Customer Service Department, 1295 H Street, Penrose, Colorado 81240. Tel. 719-372-6565 Fax 719-372-3419.

N.A.R.* MODEL ROCKET SAFETY CODE

Effective February 10, 2001

1. MATERIALS. I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.

2. MOTORS. I will use only certified, commercially-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.

3. IGNITION SYSTEM. I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the launch switch, and will use a launch switch that returns to the "off" position when released.

4. MISFIRES. If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.

5. LAUNCH SAFETY. I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet (4.6 m) away when I launch rockets with D motors or smaller, and 30 feet (9 m) when I launch larger rockets. If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance.

6. LAUNCHER. I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launcher so that the end of the launch rod is above eye level or will cap the end of the rod when it is not in use.

7. SIZE. My model rocket will not weigh more than 53 ounces (1500 grams) at liftoff and will not contain more than 4.4 ounces (125 grams) of propellant or 71.9 pound-seconds (320 N-sec) of total impulse. If my model rocket weighs more than one pound (453 grams) at liftoff or has more than 4 ounces (113 grams) of propellant, I will check and comply with Federal Aviation Administration regulations before flying.

8. FLIGHT SAFETY. I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.

9. LAUNCH SITE. I will launch my rocket outdoors, in an open area at least as large as shown in the accompanying table, and in safe weather conditions with wind speeds no greater than 20 miles per hour (32 km/h). I will ensure that there is no dry grass close to the launch pad, and that the launch site does not present risk of grass fires.

LAUNCH SITE DIMENSIONS

Installed Total Impulse	Equivalent Motor Type	Minimum Site Dimensions	
		Feet	Meters
.00 - 1.25	1/4A, 1/2A	50	15
1.26 - 2.50	A	100	30
2.51 - 5.00	B	200	60
5.01 - 10.00	C	400	120
10.01 - 20.00	D	500	150
20.01 - 40.00	E	1,000	300
40.01 - 80.00	F	1,000	300
80.01 - 160.00	G	1,000	300
160.01 - 320.00	Two G's	1,500	450

10. RECOVERY SYSTEM. I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fireproof recovery system wadding in my rocket.

11. RECOVERY SAFETY. I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places.

As a member of the Estes Model Rocketry Program, I promise to faithfully follow all rules of safe conduct as established in the above code.

Signature _____

Important Note: "G" engines must be sold to and used by adults (18 and up) only.

To launch large model rockets weighing more than one lb. (453 g) including propellant or rockets containing more than 4 oz. (113 g) but no more than 4.4 oz. (125 g) of propellant (net weight), you must notify and perhaps obtain authorization from the Federal Aviation Administration (FAA). Check your telephone directory for the office nearest you or contact Estes Industries for further information.

*National Association of Rocketry



www.nar.org

**ALTITUDE
TRACKING
CAPSULE!**



**EVERY STARTER SET INCLUDES LAUNCH
EQUIPMENT & FLIGHT SUPPLIES!**



4 "AA" Alkaline Batteries required - not included.

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age. Must be 14 to purchase in California or New Jersey.

Ready to Fly (RTF) Starter Sets

- Fully constructed and decorated rocket
- Complete launch system with flight supplies
- Ready to fly in minutes

**INCLUDES FREE
KODAK 110 COLOR
FILM!**



(Actual photo taken from SnapShot™ Camera Rocket)

RTF STARTER SETS

MAX TRAX®

1434

Track how high this rocket flies. The Max Trax® features an electronic altitude-tracking capsule that automatically calculates and displays how high the rocket traveled in feet and meters.

SPECS: Length: 17 in. (43.2 cm);

Dia.: 1.35 in. (34.3 mm)

Wt.: 2.6 oz. (73.9 g);

Recovery: Rocket - 12 in. (30 cm) Parachute; Capsule - Streamer

Fins: Plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: B4-2, B6-2, B6-4, C6-3, C6-5
(Includes two engines)

PATRIOT

1825

The Patriot dominates the skies. This classic scale-like model rocket is built ready-to-fly and looks like the genuine surface-air defense missile used by the U.S. Army.

SPECS: Length: 18.0 in. (46 cm);

Dia.: 1.35 in. (34.3 mm)

Wt.: 2.7 oz. (75 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5
(Includes two engines)

NSA STARSHIP™ 1827

“Penrose, we have liftoff!” Explore new worlds with the NSA Starship™. Like those launched at the cape, this ready-to-fly model rocket soars high into the sky then deploys a parachute to return to earth.

SPECS: Length: 18.0 in. (46 cm);

Dia.: 1.35 in. (34.3 mm)

Wt.: 2.7 oz. (75 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5
(Includes two engines)

SNAPSHOT™ 1848

Take fantastic photos from 500 feet high! The Snapshot™ camera rocket is factory assembled and ready to launch. Includes a FREE roll of Kodak 110 color print film. Film developing available locally.

SPECS: Length: 18.0 in. (46 cm);

Dia.: 1.35 in. (34.3 mm)

Wt.: 3 oz. (86.2 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 500 ft. (152 m);

Recommended Engine: C6-5 ONLY
(Includes two engines)

Colors may vary.

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**New!
Decor**



**MINI SUPER SHOT[™]
STARTER SET**



SPACE HAULER[™]



SPACE BUS[™]



1406 ALPHA III[®]

**ALPHA III[®]
STARTER SET**

New!

**21 IN.
TALL!
(55 CM)**



ASTROMINOR[®] OUTLAW[™]

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age. Must be 14 to purchase in California or New Jersey.

E2X® Starter Sets*

- Almost ready to fly rocket
- Assembled parachute
- Self-adhesive decals
- Complete launch system with engines
- Colored parts

New!
FLIES
1,400 FT.!
(427 m)



LAUNCHABLES™ STARTER SET



Colors may vary.

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.com

E2X® STARTER SETS

ALPHA III®

1406

Features a bright molded one piece fin unit and nose cone and engines for two fantastic parachute recovered flights.

SPECS: Length: 12.25 in. (31.1 cm);

Dia.: 0.98 in. (24.9 mm);

Wt.: 1.2 oz. (34 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1100 ft. (335 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7 (Includes two engines)

MINI SUPER SHOT™

1431

Features two mini-engine powered rockets that can be ready to fly in an hour. Also includes special mini-rocket launch pad.

SPECS: Length: Space Bus™ - 5.25 in. (13.3 cm);

Space Hauler™ - 5.38 in. (13.7 cm);

Dia.: Space Bus™ - 1.0 in. (25.4 mm); Space Hauler™

0.75 in. (19.1 mm);

Wt.: Space Bus™ - 0.74 oz. (21.2 g); Space Hauler™

0.67 oz. (18.9 g);

Recovery: Streamer;

Fins: Plastic molded;

Max. Altitude: Space Bus - 700 ft. (213 m); Space Hauler - 760 ft. (231 m);

Recommended Engines: 1/4A3-3T, 1/2A3-4T, A3-4T, A10-3T (Includes two engines)

LAUNCHABLES™

1452

A complete starter set that includes two exciting model rockets, the Black Diamond™ that streaks over 1400 feet high and the Astron® Outlaw™ that's almost two feet tall. The Astron® Outlaw™ assembles in less than an hour, the Black Diamond™ is easy to build and finish.

Black Diamond™

SPECS: Length: 12.1 in. (30.7 cm);

Dia.: 0.736 in. (18.7 mm);

Wt.: 0.6 oz. (17 g);

Recovery: Streamer;

Fins: Die cut card stock;

Max Altitude: 1470 ft. (448m);

Recommended Estes Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

Astron® Outlaw™

SPECS: Length: 21.5 in. (54.6 cm);

Dia: 1.35 in. (34.3 mm);

Wt: 2.4 oz. (69.1 g);

Recovery: 12 in. (30 cm) Assembled Parachute

Fins: Plastic molded;

Max Altitude: 600 ft. (183m);

Recommended Estes Engines: A8-3, B4-4, B6-4, C6-5

* All starter sets require 4 - "AA" alkaline batteries - not included



E2X® ROCKET KITS

HIGH FLYING
3
FIN DESIGN



HIGH
PERFORMANCE
4
FIN DESIGN



"SNAPS"
TOGETHER



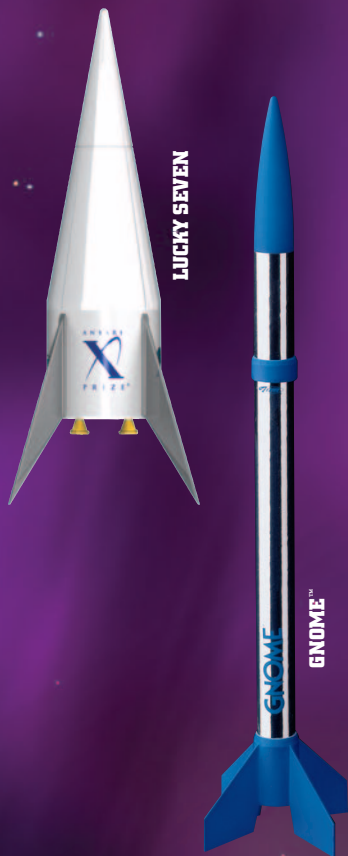
E2X® ROCKET Sets

- Easy to Assemble
- No Painting
- Self-adhesive decals
- Engines and launch equipment sold separately

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

- Great First Rocket!
- No Painting
- No Assembly Required
- Engines and launch equipment-sold separately.

New!
1:50 SCALE
MINI-ENGINE
POWER!



X PRIZE is a registered trademark of the X PRIZE Foundation and is used by permission.

Colors may vary.

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rockets
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READY TO FLY (RTF) ROCKETS

CRUISE MISSILE™

1847

Imagine the thrill of launching this realistic model of America's most potent strategic weapon. Ready to fly in just minutes.

SPECS: Length: 9.0 in. (22.9 cm);

Dia.: 1.0 in. (25.4 mm)

Wt.: 1.4 oz. (40 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 200 ft. (61 m);

Recommended Engines: A3-4T, A10-3T

E2X® ROCKET KITS

BANDITO™

0803

The high-flying Bandito™ sport rocket can be easily assembled in under an hour. Includes pre-colored slotted body tube and plastic parts and screams into the sky on mini-engines.

SPECS: Length: 11.2 in. (28.4 cm);

Dia.: 0.736 in. (18.7 mm);

Wt.: 0.60 oz. (17 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 600 ft. (183 m);

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

FIREHAWK™

0804

The Firehawk™ is a high performance, quick-to-build rocket that streaks over 500 feet high on mini-engines. Includes pre-colored body tube and plastic parts. Builds in less than 30 minutes.

SPECS: Length: 11.2 in. (28.4 cm);

Dia.: 0.736 in. (18.7 mm);

Wt.: 0.65 oz. (18.4 g);

Recovery: 12 in. (30 cm) Parachute; **Fins:** Plastic molded;

Max. Altitude: 550 ft. (168 m);

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

FIRESTREAK SST™

0806

An Estes original! The first-ever snap together rocket. No fuss, no muss, simply snap the Firestreak SST™ together and get out and launch this hot looking rocket in minutes.

SPECS: Length: 10.2 in. (26 cm);

Dia.: 0.885 in. (22.5mm);

Wt.: 1.14 oz. (32.3 g);

Recovery: Streamer; **Fins:** Plastic molded;

Max. Altitude: 350 ft. (107 m);

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

LUCKY SEVEN

0807

The Lucky Seven is a stellar-looking version of the Acceleration Engineering X Prize competition spaceship. Blasting 200 feet in the air and powered by an Estes mini-engine. Recovered with a colorful, fully assembled parachute. Easy assembly, 1:50 scale.

SPECS: Length: 7.9 in. (20 cm);

Dia.: 1.37 in. (41.6 mm);

Wt.: 1.5 oz. (43.4 g)

Recovery: 12 in. (30 cm) Parachute

Fins: Plastic Molded

Max Altitude: 200 ft. (61 m)

Recommended Engine: A10-3T

GNOME™

0886

Eye-dazzling, chrome rocket soars to heights of 800 ft. (244m).

The Gnome™ comes with a colored one piece fin unit for quick assembly. Be ready to launch in less than an hour.

SPECS: Length: 10.3 in. (26.0 cm);

Dia.: 0.54 in. (13.8 mm)

Wt.: 0.4 oz. (12 g);

Recovery: Streamer;

Fins: One piece plastic molded;

Max. Altitude: 800 ft. (244 m);

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

**CLASSIC DESIGN
&
EASY TO BUILD**



Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

E2X® ROCKET KITS

MINI MEANIE™

1202

Get out of the way...the Mini Meanie™ is tearing up the sky. It soars up to 700 ft. (213 m). The Mini Meanie™ comes with a colored nose cone and body halves, so no painting is required.

SPECS: Length: 5.25 in. (13.3 cm);

Dia.: 1.0 in. (25.4 mm)

Wt.: 0.74 oz. (21.2 g);

Recovery: Streamer;

Fins: Plastic molded;

Max. Altitude: 700 ft. (213 m);

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

FREAKY FLYER™

1203

This "Freaky" mini-engine rocket has an eye-catching look to it. It blasts to 750 ft. (228 m). The Freaky Flyer™ comes with a colored nose cone and body halves, so it can be ready in under an hour.

SPECS: Length: 5.38 in. (13.7 cm);

Dia.: 0.75 in. (19.1 mm)

Wt.: 0.67 oz. (18.9 g)

Recovery: Streamer;

Fins: Plastic molded;

Max. Altitude: 750 ft. (228 m);

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

ALPHA III®

1256

The very first Estes E2X® rocket! One piece fin unit for easy construction. Millions have started with this classic design.

SPECS: Length: 12.3 in. (31.1 cm);

Dia.: 0.98 in. (24.8 mm)

Wt.: 1.2 oz. (34 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1100 ft. (335 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

No. 2 ESTES SKY WRITER®

1260

This fun rocket looks like a wooden pencil. It "sky writes" up to 1100 ft. (335 m) in the air. The No. 2 Estes Sky Writer™ comes with colored body tubes, fins and nose cone, so assembly is quick and easy.

SPECS: Length: 26 in. (66 cm);

Dia.: 0.98 in. (24.8 mm)

Wt.: 1.5 oz. (41.3 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1100 ft. (335 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5

COSMIC COBRA™

1262

The Cosmic Cobra™ features a two-way recovery system. The booster returns to earth using a 12 in. (30 cm) parachute, while the nose cone helicopters down gently using rotor blades.

SPECS: Length: 19.5 in. (49.5 cm);

Dia.: 1.35 in. (34.3 mm)

Wt.: 3.1 oz. (88 g);

Recovery: Booster - 12 in. (30 cm) Parachute; Nose Cone - Helicopter;

Fins: Two piece plastic molded;

Max. Altitude: 530 ft. (162 m);

Recommended Engines: B4-2, B6-2, B6-4, C6-3, C6-5

BLUE NINJA™

1300

The Blue Ninja™ is the biggest rocket in the E2X® class! It is over 30 in. (76.2 cm) tall and is powered by a "C11" or "D" engine. The Blue Ninja™ comes with shiny blue prismatic body tubes and colored fins and nose cone.

SPECS: Length: 31.3 in. (79.5 cm);

Dia.: 1.64 in. (41.6 mm)

Wt.: 5.1 oz. (145.4 g);

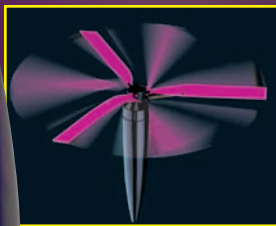
Recovery: 18 in. (46 cm) Parachute;

Fins: Plastic molded;

Max. Altitude: 780 ft. (238 m);

Recommended Engines: C11-3, D12-3

Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.



Colors may vary.

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rockets
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**INCLUDES FREE
KODAK 110 COLOR
FILM!**

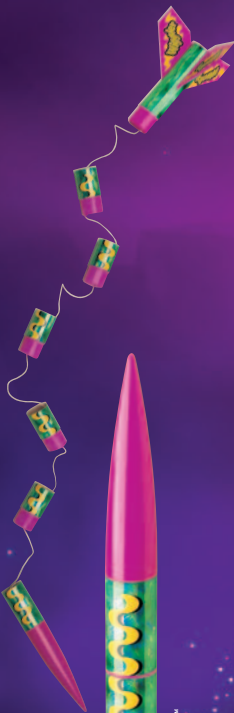
**CLASSIC
KIT!**



ASTROCAM[®] 110



CHROME DOMES[™]
GOLD SERIES



WACKY WIGGLER[™]

**2
SHUTTLES SOAR
THROUGH THE SKY!**



SHUTTLE EXPRESS[™]

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

New!
PERFECT FOR
BEGINNERS

FUN FOR
PROS!



EAGLE™ BOOST
GLIDER



New!
DIGITAL
MOVIES FROM
LIFTOFFS TO
LANDINGS!



ORACAL™

E2X® ROCKET KITS

ASTROCAM® 110

1327

The AstroCam® 110 is back and better than ever! The aerial camera nose cone has a newly designed shutter release that makes it even easier to use. Includes a FREE roll of Kodak Gold 110 film. Launch it on a B6-4 for close-up low altitude photos or take it to the limit on a C6-7 for high altitude shots.

SPECS.: Length: 18.4 in. (46.7 cm)

Dia.: 1.35 in. (34.3 mm)

Wt.: 2.7 oz. (76.4 g)

Recovery: 12 in. (30 cm) parachute

Fins: Plastic molded

Max Altitude: 500 ft. (152 m)

Film: 110 ASA 400

Recommended Engines: B6-4, C6-7

CHROME DOMES™

2181

GOLD SERIES

Catch some attention! Chrome Domes™ - Gold Series rockets feature gold chrome plated fins and nose cone. The body tube comes in a variety of prismatic colors (each color sold separately).

SPECS.: Length: 18 in. (45.7 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 2.7 oz. (75 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Two piece plastic molded;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5

WACKY WIGGLER™

2182

Wacky Wiggler™ launches like a standard rocket, but comes down in a whole new way. The prismatic body sections separate and the entire rocket "wiggles" its way back to earth. This wacky recovery rocket can fly over 1000 ft. (305 m).

SPECS.: Length: 17.75 in. (45.1 cm);

Dia.: 1.1 in. (27.9 mm); **Wt.:** 2.0 oz. (56.5 g);

Recovery: Break-apart;

Fins: Plastic molded;

Max. Altitude: 1040 ft. (317 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, C6-3, C6-5

SHUTTLE XPRESS™

2183

New wave of fighter technology. The Shuttle Xpress™ carries two fighter shuttles to battle. At apogee, it releases the two fighter shuttles that glide back to earth. The booster is recovered by a 12 in. (30 cm) Parachute.

SPECS.: Length: 17.69 in. (44.9 cm);

Dia.: 1.35 in. (34.3 mm); **Wt.:** 3.2 oz. (89.7 g);

Recovery: Booster - 12 in. (30 cm) Parachute; Shuttles - Glider;

Fins: Plastic molded;

Max. Altitude: 586 ft. (179 m);

Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

EAGLE™ BOOST GLIDER

2186

This easy-to-assemble boost glider is ready for the next boost glider contest. The assembly of the glider and power pod is nearly foolproof and takes the complexity out of trimming and launching rocket boosted gliders.

SPECS.: Length: 24.8 in. (62.9 cm);

Wingspan: 13 in. (33 cm);

Dia.: 0.74 in. (18.8 mm);

Wt.: 3.4 oz. (97.1 g);

Recovery: 30 in. (76 cm) Glider & Streamer

Fins: Die cut foam

Max Altitude: 500 ft. (152 m);

Recommended Engines: B4-2, B6-2, C6-3

ORACLE™

2187

See first hand what it looks like from your rocket's point-of-view to be blasted off and then recovered. The easy-to-use video camera allows you to capture digital movies from liftoffs to landings. Save the movies to your laptop or PC using the included software and USB cable.

SPECS.: Length: 36 in. (91.4 cm)

Dia.: 1.64 in. (41.7 mm)

Wt.: 7.6 oz. (215 g)

Recovery: 18 in. (46 cm) Nylon Parachute

Fins: Plastic molded

Max Altitude: 600 ft. (183 m)

Recommended Engines: D12-3, D12-5

Requires Windows-based computer, with CD-ROM and USB port. Requires one 'AAA' alkaline battery - sold separately

Colors may vary.

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- Quick and easy to build kits with sanding, cutting and painting required
- Some kits feature a Through-The-Tube Fin System
- Engines and launch equipment-sold separately



New!
1:55 SCALE
LITTLE JOE II
STYLING!

**LASER CUT
BALSA!**



**GO
BALLISTIC!**



Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

SKILL LEVEL 1 ROCKET KITS

QUARK™

8020

Mini-engine powered mighty mite. With incredibly simple construction (only seven parts), a little spray paint and decals, and whoosh - out-a-sight flights to 700 ft. (213 m). Quick featherweight recovery for this micro rocket.

SPECS: Length: 5.2 in. (13.2 cm);

Dia.: 0.54 in. (13.7 mm)

Wt.: 0.1 oz. (3 g);

Recovery: Featherweight;

Fins: Die cut balsa;

Max. Altitude: 700 ft. (213 m);

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

GAUCHITO

8009

A Pablo de Leon creation with a retro-looking Little Joe II design. Entered in X Prize competition lifts-off to 300 feet into the air using an Estes mini-engine. Laser cut balsa parts. 1:55 scale.

SPECS: Length: 8.6 in. (21.8 cm)

Dia.: 1.54 in. (39.1 mm)

Wt.: 1.08 oz. (30.6 g)

Recovery: 12 in. (30 cm) Parachute

Fins: Laser cut balsa

Max Altitude: 300 ft. (92 m)

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

220 SWIFT™

8010

This fun and easy to build "itty-bitty" rocket really scoots through the sky. The 220 Swift™ is sleek and launches on mini-engines then tumbles back to earth.

SPECS: Length: 4.5 in. (11.4 cm);

Dia.: 0.54 in. (13.7 mm)

Wt.: 0.094 oz. (2.7 g);

Recovery: Featherweight;

Fins: Die cut balsa;

Max. Altitude: 750 ft. (260 m);

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

ALPHA®

1225

For over 36 years, the Alpha® has been the first choice for millions of rocket modelers. Easy to build, rugged high performance, parachute recovery - the perfect rocket to get you started!

SPECS: Length: 12.3 in. (31.2 cm);

Dia.: 0.98 in. (24.9 mm)

Wt.: 0.8 oz. (23 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 1000 ft. (305 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

BABY BERTHA™

1261

A miniature version of one of the most popular kits of all time, the Big Bertha®. The Baby Bertha™ soars to 575 ft. (175 m).

SPECS: Length: 12.75 in. (32.4 cm);

Dia.: 1.64 in. (41.6 mm)

Wt.: 1.6 oz. (45.3 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 575 ft. (175 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5

WIZARD™

1292

No tricks here - the Wizard™ is an easy to build high-performance kit. A great first or second kit that promises real excitement and fun!

SPECS: Length: 12 in. (30.5 cm);

Dia.: 0.74 in. (18.8 cm)

Wt.: 0.4 oz. (12 g);

Recovery: Streamer;

Fins: Die cut balsa;

Max. Altitude: 1500 ft. (457 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7



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STORMCASTER™



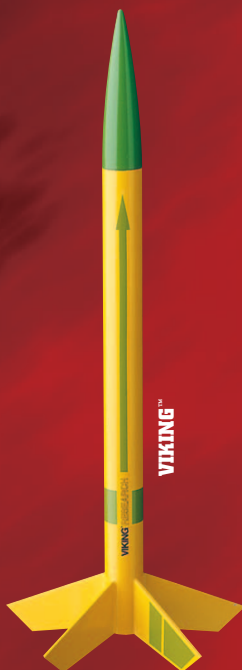
YANKEE™



BIG BERTHA®



BLU-97B CLUSTER BOMB™



VIKING™

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12.

**DESERT
STORM
VETERAN!**

**FANTASTIC
FOR
1ST TIME
STAGING!**



MONGOOSE™



U.S. ARMY PATRIOT M-104

SKILL LEVEL 1 ROCKET KITS

STORMCASTER™ 1301

Go big on a small budget! Powered by the "C11" engine, this big rocket can also be used with a "D" engine. The StormCaster™ is over 30 in. (76.2 cm) tall. It flies up to 930 ft. (283 m).

SPECS: Length: 30.25 in. (76.8 cm);

Dia.: 1.64 (41.6 mm); **Wt.:** 2.9 oz. (80.8 g);

Recovery: 18 in. (46 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 930 ft. (283 m);

Recommended Engines: C11-3, C11-5, D12-5

Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

YANKEE™ 1381

A rocket with All-American performance - screams to 1400 ft. (427 m) altitude! Comes with cool self-adhesive decals, for that red, white and blue look.

SPECS: Length: 11 in. (27.9 cm);

Dia.: 0.74 in. (18.8 mm); **Wt.:** 0.4 oz. (12 g);

Recovery: Streamer;

Fins: Die cut balsa;

Max. Altitude: 1400 ft. (427 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

BIG BERTHA® 1948

Burly, big and beautiful! Over the decades this is the first big (two feet tall) rocket for many modelers. Slow, realistic lift-offs from this true classic.

SPECS: Length: 24 in. (61 cm);

Dia.: 1.64 in. (41.6 mm); **Wt.:** 2.2 oz. (62 g);

Recovery: 18 in. (46 cm);

Fins: Die cut balsa;

Max. Altitude: 500 ft. (152 m);

Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-5

VIKING™ 1949

Fantastic rocket with 48 possible fin configurations. Features die cut card fins, decals and streamer recovery. Super high flights.

SPECS: Length: 12.1 in. (30.7 cm);

Dia.: 0.74 in. (18.8 mm); **Wt.:** 0.6 oz. (17 g);

Recovery: Streamer;

Fins: Die cut card stock;

Max. Altitude: 1470 ft. (448 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

BLU-97B CLUSTER BOMB™ 2055

Bombs away with the BLU-97B Cluster Bomb™! Drops four cluster bombs in flight. This is a 1:6.4 scale replica of the U.S. Air Force anti-armor/anti-personnel weapon.

SPECS: Length: 14.4 in. (36.6 cm);

Dia.: 2.217 in. (56.3 mm); **Wt.:** 3.1 oz. (86.9 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 390 ft. (119 m);

Recommended Engines: B4-2, B6-2, C6-3

U.S. ARMY PATRIOT M-104 2056

A classic 1:10 scale model rocket of the desert hero and mother of all air defense missiles. Based on the U.S. Army's M-104 surface-air missile. Blasts 600 feet high!

SPECS: Length: 21.3 in. (54.1 cm);

Dia.: 1.637 in. (41.6 mm); **Wt.:** 1.95 oz. (55 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5

MONGOOSE™ 2092

Perfect first two-stage rocket! Super quick to build with high altitude performance - over 1600 ft. (488 m)!

SPECS: Length: 26.5 in. (67.3 cm);

Dia.: 0.98 in. (24.9 mm); **Wt.:** 2.3 oz. (65 g);

Recovery: Booster-Tumble; Main Stage-Streamer;

Fins: One piece plastic molded;

Max. Altitude: 1600 ft. (488 m);

Recommended Engines: Single Stage - A8-3, B4-4, B6-4, C6-5; Two Stage: Booster - B6-0, C6-0; 2nd Stage - A8-5, B6-6, C6-7

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FAT BOY™

**BLASTS
1,600 FT.
HIGH!**
(488 m)



HI-FLIER®



STAR DART™



SIZZLER®

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

SKILL LEVEL 1 ROCKET KITS

New!
1:91 SCALE
NEARLY
20 IN. TALL!
(50 cm)

LASER CUT
BALSA!

New!
1:11 SCALE
MIGHTY
"D" ENGINE
POWER!



FAT BOY™ 2139

Fat Boy™...and proud of it! Bullets its way to over 300 ft. (91 m) in altitude and recovers with a parachute.

SPECS: Length: 12.9 in. (32.8 cm);

Dia.: 2.6 in. (66 mm)

Wt.: 3.0 oz. (85 g);

Recovery: 18 in. (46 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 325 ft. (99 m);

Recommended Engines: B4-2, B6-2, C6-3

STAR DART™ 2170

This rocket flies through the air with amazing speed! It can hit altitudes over 2000 ft. (607 m)!

SPECS: Length: 12.75 in. (32.4 cm);

Dia.: 0.74 in. (18.8 mm)

Wt.: 1.0 oz. (27.2 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 2010 ft. (613 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

SIZZLER® 2171

Burn up the sky with the Sizzler®! This rocket scorches through the atmosphere with flights over 2000 ft. (607 m)!

SPECS: Length: 11.75 in. (29.8 cm);

Dia.: 0.74 in. (18.8 mm)

Wt.: 0.8 oz. (23.8 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 2040 ft. (622 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, C6-7

HI-FLIER® 2178

Keep an eye on this one! The Hi-Flier® rocket is a high altitude rocket. It soars over 1600 ft. (488 m), and is recovered by a bright orange streamer.

SPECS.: Length: 12 in. (30.5 cm);

Dia.: 0.74 in. (18.8 mm)

Wt.: 0.82 oz. (23.2 g);

Recovery: Streamer;

Fins: Die cut balsa;

Max. Altitude: 1690 ft. (515 m);

Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, C6-5, C6-7

RUBICON 2189

Designed after the Space Transport X Prize spacecraft, the mighty rocket blasts-off on a powerful "D" engines reaching 450 feet in altitude. Once at peak altitude, a fully assembled 18 in. parachute is ejected for a slow, safe recovery. 1:11 scale.

SPECS.: Length: 22.9 in. (58.2 cm)

Dia.: 3.21 in. (81.5 mm)

Wt.: 7.3 oz. (206.9 grams)

Recovery: 18 in. (45 cm) Parachute

Fins: Plastic molded

Max. Altitude: 450 ft. (137 m)

Engines: D12-3, D12-5

EAGLE 2193

A highly detailed X Prize spaceship from the Vanguard Spacecraft team. The Eagle soars 500 feet into the sky! Includes multiple display nozzles and laser cut balsa parts. 1:91 scale.

SPECS.: Length: 19.5 in. (49.5 cm)

Dia.: 1.637 in. (41.6 mm)

Wt.: 3.0 oz. (85.0 g)

Recovery: 12 in. (30 cm) Parachute

Fins: Plastic molded & Laser cut balsa

Max. Altitude: 500 ft. (152 m)

Recommended Engines: B4-2, B6-4, C6-3, C6-5

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SKILL LEVEL 2 ROCKET KITS

- Requires more skill in building and painting
- Assembly time may take a complete day
- Engines and launch equipment - sold separately

HIGH FLYING
2
STAGE



MILITARY
SMART
BOMB



MILITARY
SCALE
AIR-AIR
MISSILE



REAR
EJECTION
PARACHUTE
SYSTEM!



Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

SKILL LEVEL 2 ROCKET KITS

CC EXPRESS™

1302

The CC Express™ is a high-flying, two-stage rocket powered by "C11" engines. It can also be flown using "D" engines. It soars to 1790 ft. (546 m) in the air.

SPECS: Length: 28.38 in. (72.1 cm);

Dia.: 1.33 in. (33.7 mm)

Wt.: 2.7 oz. (75.3 g);

Recovery: 18 in. (46 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 1790 ft. (546 m);

Recommended Engines: Single Stage - C11-5, D12-5;

Two-Stage: Booster - C11-0, D12-0; 2nd Stage - C11-5, C11-7, D12-7

Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) sold separately.

GBU-24 PAVEWAY III™

2053

The GBU-24 Paveway III™ is a 1:8 scale rocket modeled after the laser-guided smart bomb used by the U.S. Air Force and Navy. Includes authentic decals and flies over 600 feet high!

SPECS: Length: 21.3 in. (54.1 cm);

Dia.: 1.325 in. (33.7 mm)

Wt.: 2.3 oz. (65.5 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 665 ft. (203 m);

Recommended Engines: A8-3, B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

PYTHON 4™ ASRAAM

2054

The Python 4™ is 1:5 scale version of the fourth generation Advanced Short Range Air-Air Missile. Includes realistic decals and flies 500 feet into the sky!

SPECS: Length: 24 in. (61 cm);

Dia.: 1.325 in. (33.7 mm)

Wt.: 2.8 oz. (79.3 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 500 ft. (152 m);

Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

GEMINI DC™

2136

Twin parachutes are rear-ejected from the side pods on this stunning rocket. A great flier! A unique rocket!

SPECS: Length: 21.5 in. (54.6 cm);

Dia.: 0.98 in. (24.9 mm)

Wt.: 3.4 oz. (95 g);

Recovery: Dual 12 in. (30 cm) Parachutes;

Fins: Die cut balsa;

Max. Altitude: 800 ft. (244 m);

Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

GUARDIAN™

2179

The Guardian™ rocket simulates a ground-to-air missile. This multi-finned guardian of the sky soars over 700 ft. (213 m).

SPECS.: Length: 19.13 in. (48.6 cm);

Dia.: 1.33 in. (33.8 mm)

Wt.: 2.4 oz. (68.6 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 723 ft. (220 m);

Recommended Engines: A8-3, B4-4, B6-4, B6-6, C6-5

METEOR MASHER™

2184

The Meteor Masher™ soars into the sky carrying 3 deep space cluster bombs.

SPECS.: Length: 27 in. (68.6 cm);

Dia.: 1.33 in. (33.8 mm)

Wt.: 4.0 oz. (113 g);

Recovery: Rocket - 12 in. (30 cm) Parachute; Bombs -

Streamer **Fins:** Die cut balsa;

Max. Altitude: 490 ft. (149 m);

Recommended Engines: B4-2, B4-4, B6-2, B6-4, C6-3, C6-5



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Estes model rocketry is recommended for ages 10 years and up.
Adult supervision is recommended for those under 12 years of age.

**WHISTLES
THROUGH THE
AIR!**



SCREAMIN' MIMI™



New!
**1:67 SCALE
D ENGINE
BOOST GLIDER**

COSMOS MARINER



New!
**1:30 SCALE
1ST PRIVATE
MANNED
SPACESHIP!**

SPACESHIPONE™



**Ansari
X Prize
Winner!**

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SKILL LEVEL 2 ROCKET KITS

SCREAMIN' MIMI™

2185

Launch and listen to this amazing, screamin' rocket. The Screamin' Mimi™ rocket whistles while flying. It is powered by Estes C11 and D engines.

SPECS.: Length: 25.5 in. (64.8 cm);

Dia.: 1.64 in. (41.7 mm)

Wt.: 5.3 oz. (150.3 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 752 ft. (229 m);

Recommended Engines: C11-3; For Sound-D12-5, D12-7 Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

COSMOS MARINER

2190

The Estes Cosmos Mariner is a boosted glider version of the sleek X Prize rocket plane from the Lone Star Space Access team. The rocket plane blasts off 250 ft. into the air using a powerful "D" engine. Laser cut balsa parts. 1:67 scale.

SPECS.: Length: 18 in. (46 cm)

Wingspan: 13.5 in. (34.3 cm)

Dia.: 1.637 in. (41.6 mm)

Wt.: 8.6 oz. (243.6 g)

Recovery: Glider & 18 in. (46 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 250 ft. (76 m)

Recommended Engine: D12-3

Requires 3/16" (5 mm) Maxi™ Rod (302244) - sold separately.

SPACESHIPONE™

2191

The famous Scaled Composites X Prize winning spacecraft, designed by Burt Rutan. Based on the first privately manned spaceship to reach outer space. It blasts 400 feet into the air and uses an Estes B or C engine. Laser cut balsa parts. 1:30 scale.

SPECS.: Length: 13.0 in. (33 cm)

Wingspan: 6.5 in. (16.5 cm)

Dia.: 2.0 in. (50.8 mm)

Wt.: 3.0 oz. (85.0 g)

Recovery: 12 in. (30 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 400 ft. (122 m)

Recommended Engines: B4-2, B6-2, C6-3

THUNDERSTAR

2192

Designed by Starchaser Industries, the Thunderstar X Prize entry uses a cluster of two Estes engines to reach 1,000 feet in the air. At apogee, a fully assembled 18" parachute is deployed allowing for a safe recovery. Laser cut balsa parts. 1:41 scale.

SPECS.: Length: 26.5 in. (67.3 cm)

Dia.: 1.637 in. (41.6 mm)

Wt.: 2.75 oz. (78.1 g)

Recovery: 18 in. (46 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 1000 ft. (305 m)

Recommended Engines: 2xA8-3, 2xB4-4, 2xB6-4, 2xC6-5 (DO NOT MIX ENGINES)

BULL PUP 12D™

7000

Sport scale version of the USAF AGM-12D Bull Pup. Plastic tail cone and authentic color decals! Great first scale model.

SPECS: Length: 15.6 in. (39.6 cm);

Dia.: 1.33 in. (33.8 mm)

Wt.: 1.8 oz. (51 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: Die cut balsa;

Max. Altitude: 675 ft. (206 m);

Recommended Engines: A8-3, B4-4, B6-4, C6-5



New!
1:41 SCALE
2 ENGINE
CLUSTER!

LASER CUT
BALSA

THUNDERSTAR

THUNDERSTAR

GREAT
SCALE
MODEL!



BULL PUP 12D™

www.
estes
rockets
.com

SKILL LEVEL 3 ROCKET KITS

- The construction and flying of these kits require a higher level of skill
- Assembly may take a couple of days
- Engines and Launch equipment-sold separately



**IMPROVED
SWING WING
PIVOT
MECHANISM!**



SCISSOR WING TRANSPORT™

**CLASSIC KIT!
LASER CUT
BALSA!**



COMANCHE-3™

**3
STAGES!**

**SCALE
MODEL
OF THE
WORLD'S
FASTEST
JET!**



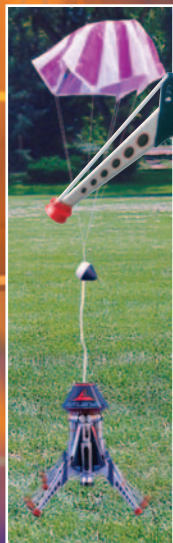
SR-71 BLACKBIRD™

**AWESOME
2
STAGE
LAUNCHES!**



RENEGADE™

**COOL
'CHUTE &
LANDER
RECOVERY!**



OUTLANDER™



CANADIAN ARROW

New!
**1:24 SCALE
BIG D ENGINE
POWER!**
**LASER CUT
BALSA**

SKILL LEVEL 3 ROCKET KITS

SCISSOR WING TRANSPORT™ 1265

This classic rocket boosted glider with revolutionary swing-wing recovery is back! Launches as a rocket - recovers as a glider! New and improved pivot mechanism for increased transition reliability. Laser cut balsa parts.

SPECS: Length: 23.4 in. (59.4 cm)

Wingspan: 16 in. (40.6 cm)

Dia.: 0.98 in. (24.9 mm)

Wt.: 3.1 oz. (89.1 g)

Recovery: Glider & 12 in. (30 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 750 ft. (229 m)

Recommended Engines: B4-4, B6-2, C6-3

COMANCHE-3™ 1382

A "D" engine powered booster stage rocket that roars to ultra high altitudes - over half a mile (805 m) high!

SPECS: Length: 41 in. (104.1 cm);

Dia.: 0.98 in. (24.9 mm); **Wt.:** 2.1 oz. (59 g);

Recovery: Booster-Tumble; Main Stage-Two Streamers;

Fins: Die cut balsa;

Max. Altitude: 2660 ft. (811 m);

Recommended Engines: Single Stage Flights - A8-3, B4-4,

B6-4, C6-5; Three Stage Flights - Booster: C11-0, D12-0;

Second Stage: B6-0, C6-0; Third Stage: B6-6, C6-7. Requires

3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

SR-71 BLACKBIRD™ 1942

Build and fly the world's fastest manned jet! This SR-71 Blackbird™ is a scale model and includes authentic looking "Blackbird Skin", plastic components and decals.

SPECS: Length: 19.0 in. (48.3 cm);

Dia.: 0.976 in. (24.8 mm); **Wt.:** 3.2 oz. (90.7 g);

Recovery: 18 in. (46 cm) Parachute

Fins: Die cut balsa;

Max. Altitude: 600 ft. (183 m);

Recommended Engines: B4-2, B6-2, B6-4, C6-5

RENEGADE™ 2109

Going staged is awesome! Witness a magnificent lift-off with the Renegade™. It's over two feet tall and can be launched as a single stage or two-stage rocket.

SPECS: Length: 26.6 in. (67.6 cm);

Dia.: 1.637 in. (41.6 mm); **Wt.:** 4.3 oz. (120.9 g);

Recovery: 12 in. (30 cm) Parachute

Fins: Die cut balsa;

Max. Altitude: 850 ft. (260 m);

Recommended Engines: Single Stage - A8-3, B4-4, B6-4,

C6-5; Two-Stage: Booster - B6-0, C6-0; 2nd Stage - A8-5,

B6-4, B6-6, C6-5, C6-7

OUTLANDER™ 2110

Get ready to explore the outer rim of the galaxy with the Outlander™. It's stellar-looking design and decals complement the unique 'Chute & Lander recovery system.

SPECS: Length: 12.5 in. (31.8 cm);

Dia.: 4.375 in. (111.1 mm)

Wt.: 4.2 oz. (120.2 g);

Recovery: 18 in. (46 cm) Parachute

Fins: Die cut balsa;

Max. Altitude: 200 ft. (61 m);

Recommended Engines: B4-2, B6-2, C6-3

CANADIAN ARROW 2188

The Canadian Arrow team V-2 based X Prize rocket stands over two feet tall and includes laser cut balsa parts. It is safely recovered with a colorful, fully assembled 18-inch parachute. 1:24 scale.

SPECS: Length: 26.8 in. (67.9 cm)

Dia.: 2.60 in. (60.5 mm)

Wt.: 5.3 oz. (150 g)

Recovery: 18 in. (46 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 500 ft. (152 m)

Recommended Engines: D12-3, D12-5

Requires 3/16in. (5 mm) Maxi™ launch rod (302244) - sold separately.

Estes model rocketry is recommended for ages 10 years and up. Adult supervision is recommended for those under 12 years of age.

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"E" ENGINE POWERED ROCKET KITS

E-Z TO BUILD

OVER 3 FT TALL!



FLIES OVER 1,400 FT. HIGH

ELIMINATOR™



EXECUTIONER™

RADIO CONTROLLED ROCKET GLIDER



T-25 CENTURIAN™

www.
estes
rockets
.com

"E" ENGINE POWERED KITS

- Estes "E" engines - sold separately.
- For ages 18 and up. Adult supervision required for ages under 18.
- Requires Estes Porta-Pad® E Launch Pad (2238) and E™ Launch Controller (2230) for use - sold separately.
- Can also be flown on Estes "D" engines.

ELIMINATOR™

1950

Reach new heights with this quick-build, high-flying sport rocket. The Eliminator™ comes with colored body tubes, nose cone and fin unit, so no painting is required.

SPECS: Skill Level: 2 Length: 30.8 in. (78.2 cm);

Dia.: 1.35 in. (34.3 mm); Wt.: 4.6 oz. (130 g);

Recovery: 12 in. (30 cm) Parachute;

Fins: One piece plastic molded;

Max. Altitude: 1420 ft. (433 m);

Recommended Engines: C11-5, D12-5, D12-7, E9-6, E9-8

EXECUTIONER™

1951

Huge rocket stands over 3 ft. (0.9 m) tall! The Executioner™ comes with laser cut fins and a slotted body tube for precise fin alignment.

SPECS: Skill Level: 3 Length: 38.5 in. (97.8 cm);

Dia.: 2.6 in. (66.0 cm); Wt.: 8.1 oz. (230 g);

Recovery: 24 in. (61 cm) Parachute;

Fins: Laser cut birch wood;

Max. Altitude: 590 ft. (180 m);

Recommended Engines: D12-3, E9-4, E9-6

T-25 CENTURIAN™

2201

Experience the thrill of combining boost glider technology with R/C aerobatics. The T-25 Centurian™ is a twin tail sailplane that rockets to maximum soaring heights of close to 600 ft. (183 m). The T-25 Centurian™ comes almost ready to fly with factory built and covered wings, tail and fuselage, with linkage installed. Requires 2-Channel R/C system - sold separately.

SPECS: Wingspan: 34.5 in. (87.6 cm);

Recommended Engines: D11-P, E9-P

BLURZZ™ ROCKET POWERED RACERS

9115

Shred some tread with Rocket Powered Racers and experience the thrill of racing at scale speeds close to the speed of sound! The racers operate on any smooth stretch of asphalt or concrete. They're powered by an Estes solid fuel rocket engine and stop at the end of the track by parachute. The entire racetrack sets up in just minutes and packs up into its own carrycase when the racing is over.

SPECS: Length: 8.25 in. (21cm);

Wheelbase: 4.75 in. (12.1 cm);

Recommended Engines: A10-PT only

Tuners Asst.#9115

Drag 'On 2046

Gear' Zilla 2047

Slammurai 2048

4 'AA' Alkaline batteries required

- not included.

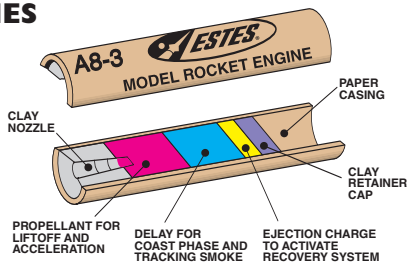


Rocket - powered racers are for ages 12 and over only.

ESTES MODEL ROCKET ENGINES

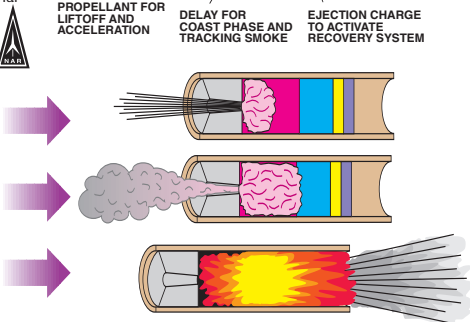
The famous model rocket engines that made model rocketry the great activity it is today. Estes model rocket engines have been proven consistent and reliable in more than 310,000,000 launches.

- The concept of a factory assembled model rocket engine is the foundation of this scientific and educational activity!
- 3% of all Estes engines are static-tested at the factory for reliability and adherence to performance specifications.
- All engines comply with the code requirements of the National Fire Protection Association and are certified by the National Association of Rocketry.



HOW DOES A MODEL ROCKET ENGINE WORK?

1. When engine is ignited, it produces thrust and boosts rocket into sky.
2. After propellant is used up, delay is activated, producing tracking smoke and allowing rocket to coast.
3. After delay, ejection charge is activated, deploying recovery system.



WHAT SIZES ARE AVAILABLE?

Estes engines are available in a wide variety of sizes and power levels:

TYPE	TOTAL IMPULSE	ENGINE TYPES
1/4A	0.313 - 0.625	Mini
1/2A	0.626 - 1.25	Standard, Mini
A	1.26 - 2.50	Standard, Mini
B	2.51 - 5.00	Standard
C6	5.01 - 10.00	Standard
C11	5.01 - 10.00	"D" Size
D	10.01 - 20.00	"D" Size
E	20.01 - 30.00	"E" Size

WHAT DO THE DIFFERENT COLOR ENGINES MEAN?

Each type of engine is printed in a different color:

- Single Stage** - Green
- Upper Stage** - Purple (Upper stage engines can be used as single stage engines in lightweight rockets.)
- Booster** - Red (Booster engines contain no delay or ejection charge.)
- Plugged** - Blue (Plugged engines are used for R/C gliders and contain no delay or ejection charge.)

Each engine has a letter-number-number code. (e.g., B6-4)

Letter: B
Number: 6
Number: 4



B = TOTAL IMPULSE

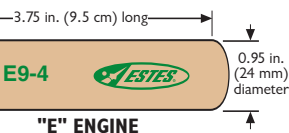
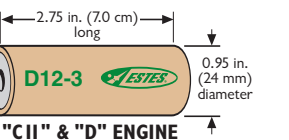
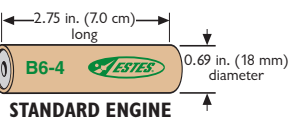
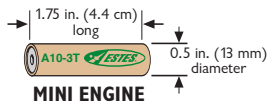
This letter is the total power (in Newton-seconds) produced by the engine. Each succeeding letter has up to twice the total power as the previous letter. (Example: "B" engines have up to twice the power of "A" engines, which results in approximately twice the altitude the rocket will reach.)

6 = AVERAGE THRUST

This number shows the engine's average push or how fast the engine powers the rocket to go. The higher the number, the faster the speed. It is measured in Newtons (4.45 Newtons = 1 lb.).

4 = TIME DELAY

This number gives you the time delay in seconds between the end of the thrust phase and ignition of the ejection charge. Engine types ending in "0" have no time delay or ejection and are used for booster stages and special purposes only. Engines ending in "P" have no time delay or ejection charge and the forward end is "Plugged".





ENGINE CHART

- Delays have a tolerance of plus or minus 10% or 1 second, whichever is greater.
- All Estes engines come complete with igniters and patented igniter plugs (Pat. No. 5,410,966 and 5,509,354). The Estes Igniter Plug makes engine ignition extremely reliable.
- Do not fly a rocket/engine combination whose liftoff weight exceeds the recommended maximum liftoff weight.

Prod. No.	Engine Type	Total Impulse	Time Delay	Max. Lift Wt.		Max. Thrust		Thrust Duration	Initial Weight		Propellant Weight	
		N-sec	Sec.	Oz.	g	Newtons	Lbs.	Sec.	Oz.	g	Oz.	g
SINGLE STAGE ENGINES (GREEN LABEL)												
1502	1/4A3-3T	0.625	3	1.0	28	4.9	1.1	0.25	0.20	5.6	0.03	0.85
1503	1/2A3-2T	1.25	2	2.0	57	8.3	1.9	0.3	0.20	5.6	0.06	1.75
1507	A3-4T	2.50	4	2.0	57	6.8	1.5	0.6	0.27	7.6	0.12	3.50
1511	A10-3T	2.50	3	3.0	85	13.0	2.9	0.8	0.28	7.9	0.13	3.78
1593	1/2A6-2	1.25	2	2.0	57	8.9	2.0	0.3	0.53	15.0	0.06	1.56
1598	A8-3	2.50	3	3.0	85	10.7	2.4	0.5	0.57	16.2	0.11	3.12
1601	B4-2	5.00	2	4.0	113	13.2	3.0	1.1	0.70	19.8	0.29	8.33
1602	B4-4	5.00	4	3.5	99	13.2	3.0	1.1	0.74	21.0	0.29	8.33
1605	B6-2	5.00	2	4.5	127	12.1	2.7	0.8	0.68	19.3	0.22	6.24
1606	B6-4	5.00	4	4.0	113	12.1	2.7	0.8	0.71	20.1	0.22	6.24
1613	C6-3	10.00	3	4.0	113	15.3	3.4	1.6	0.88	24.9	0.44	12.48
1614	C6-5	10.00	5	4.0	113	15.3	3.4	1.6	0.91	25.8	0.44	12.48
1622	C11-3	10.00	3	6.0	170	22.1	4.9	0.8	1.14	32.2	0.39	11.00
1623	C11-5	10.00	5	5.0	142	22.1	4.9	0.8	1.18	33.3	0.39	11.00
1666	D12-3	20.00	3	14.0	396	32.9	7.4	1.6	1.49	42.2	0.88	24.93
1667	D12-5	20.00	5	10.0	283	32.9	7.4	1.6	1.52	43.1	0.88	24.93
1673	E9-4	30.00	4	15.0	425	25.0	5.6	2.8	2.00	56.7	1.27	35.80
1674	E9-6	30.00	6	12.0	340	25.0	5.6	2.8	2.00	56.7	1.27	35.80
UPPER STAGE ENGINES (PURPLE LABEL)												
1504	1/2A3-4T	1.25	4	1.0	28	8.3	1.9	0.3	0.21	6.0	0.06	1.75
1599	A8-5	2.50	5	2.0	57	13.3	3.0	0.5	0.62	17.6	0.11	3.12
1607	B6-6	5.00	6	2.5	71	12.1	2.7	0.8	0.78	22.1	0.22	6.24
1615	C6-7	10.00	7	2.5	71	15.3	3.4	1.6	0.95	26.9	0.44	12.48
1624	C11-7	10.00	7	4.0	113	22.1	4.9	0.8	1.22	34.5	0.39	11.00
1668	D12-7	20.00	7	8.0	226	32.9	7.4	1.6	1.55	44.0	0.88	24.93
1675	E9-8	30.00	8	10.0	283	25.0	5.6	2.8	2.00	56.7	1.2	35.80
BOOSTER STAGE ENGINES (RED LABEL)												
1608	B6-0	5.00	None	4.0	113	12.1	2.7	0.8	0.58	16.4	0.22	6.24
1616	C6-0	10.00	None	4.0	113	15.3	3.4	1.6	0.80	22.7	0.44	12.48
1621	C11-0	10.00	None	6.0	170	22.1	4.9	0.8	0.98	27.8	0.39	11.00
1665	D12-0	20.00	None	14.0	396	32.9	7.4	1.6	1.44	40.9	0.88	24.93
PLUGGED ENGINES - FOR USE WITH ROCKET POWERED RACERS & R/C ROCKET GLIDERS (BLUE LABEL)												
1505	A10-PT	2.50	None	3.0	85	13.0	2.9	0.8	0.26	7.4	0.13	3.78
1669	D11-P	20.00	None	16.0	453	27.6	6.2	1.8	1.55	44.0	0.88	24.93
1676	E9-P	30.00	None	15.0	425	25.0	5.6	2.8	2.0	56.0	1.27	35.80

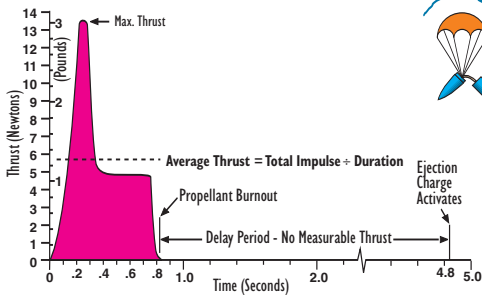
The data listed above is from randomly chosen production samples.

NOTE: The "T" designates a mini engine.



TIME/THRUST CURVES

- Time/thrust curves are representative of random production samples.
- Graphs are not drawn to the same scale

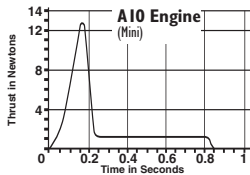
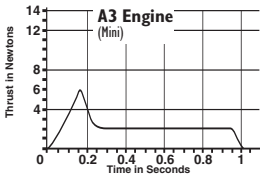
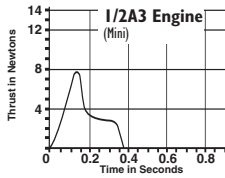
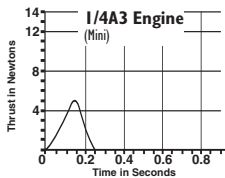


EJECTION

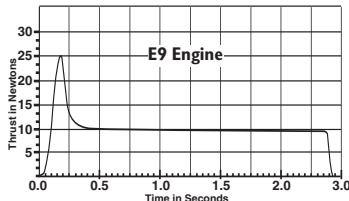
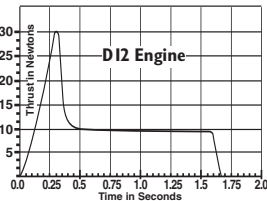
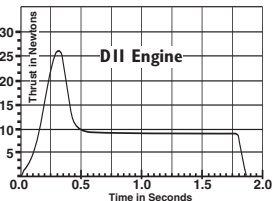
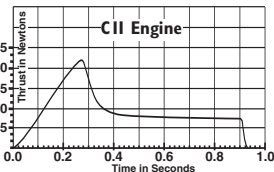
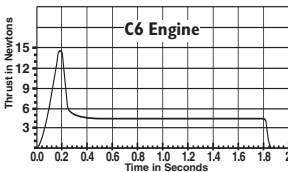
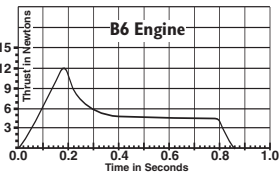
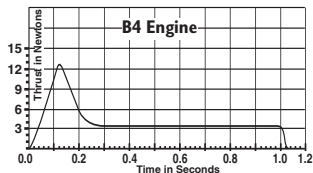
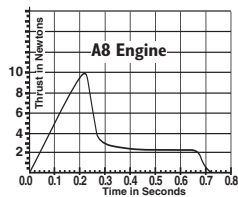
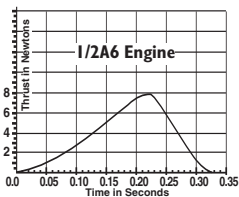
COAST PHASE

THRUST PHASE

LIFTOFF!



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MODEL ROCKET ACCESSORIES

DESIGNER'S SPECIAL 1463
Contains parts to design and build 7-8 of your own rockets.

BLAST-OFF® FLIGHT PACK 1672
Includes 6 each of A8-3, B6-4, C6-3, C6-5 engines, 30 igniters and 75 sheets of recovery wadding.

ET™ LAUNCH CONTROLLER 2230
Comes complete with safety key and 30 ft. (9 m) of cable. Requires 4 "AA" alkaline batteries - not included. Adult supervision is required for anyone under 18 when launching "E" engine powered rockets.

COMMAND CONTROL™ LAUNCH CONTROLLER 2234
The ultimate launch controller for model rockets. Comes with 30 ft. (9 m) of heavy duty cable, LED launch indicators and audible alerts. Power from one or two 7.2 volt NiCd battery packs (NiCds not included). Includes an igniter and igniter plug storage compartment.

PORTA-PAD® E LAUNCH PAD 2238
Quick assembly - no glue or tools required. Includes a 1/4 in. (6 mm) launch rod, but can accommodate a 3/16 in. (5 mm) Maxi™ launch rod - not included. Adult supervision required for anyone under 18 when launching "E" engine powered rockets.

PORTA-PAD® II LAUNCH PAD 302215
Quick assembly - no glue or tools required! Comes complete with blast deflector and standoff, two-piece 1/8 in. (3 mm) launch rod, safety cap and key. Porta-Pad® II can accommodate a 3/16 in. (5 mm) Maxi™ launch rod - not included.

ELECTRON BEAM® LAUNCH CONTROLLER 302220
Launch controller comes complete with safety key and 17 ft. (5.2 m) of cable. Requires four "AA" alkaline batteries - not included.

TUBE MARKING GUIDE 302227
Easy way to mark fin and launch lug placement lines. Also includes a fin gluing jig.

ALTRAK™ 302232
Measure altitude with this easy to use device. Follow the rocket in the sights to apogee, release the trigger to lock the reading.

EMERGENCY REPAIR KIT 302233
Contains: shock cord mounts, tape rings, safety key, recovery wadding, 12 in. (30 cm) assembled parachute, shroud lines, launch lugs, shock cords and launch rod safety cap.

BLAST DEFLECTOR PLATE 302241
Replaces that worn-out deflector.

1/8 in. (3 mm) TWO-PIECE LAUNCH ROD 302243
Replacement rod; ideal for most rockets.

3/16 in. (5 mm) TWO-PIECE MAXI™ LAUNCH ROD 302244
Launch rod with extra strength and stiffness for larger rockets.

12 in. (30 cm) PARACHUTE (Assembled) 302264

18 in. (46 cm) PARACHUTE (Assembled) 302267

24 in. (61 cm) PARACHUTE (Assembled) 302271
RECOVERY WADDING 302274

Flame resistant wadding protects recovery system. Required in most Estes rockets. Contains 75 sheets - enough for about 18-25 flights!

SHOCK CORDS & MOUNT PACK 302278
Contains two 1/8 in. x 18 in. (3 mm x 450 mm), and one 1/4 in. x 36 in. (6 mm x 910 mm) rubber shock cords (enough for four shock cords). Includes mounts and instructions.

MODEL ROCKET IGNITERS 302301
Dependable, easy-to-use Estes igniters in a convenient six pack. It's always a good idea to have a few spares.

LAUNCH LUG PACK 302320
Contains eight 1/8 in. (3 mm), four 3/16 in. (5 mm) and two 1/4 in. (6 mm) launch lugs.

ENGINE HOOK ACCESSORY PACK 303143
Hooks fit mini engines (one), regular and "D" engines (three) and "E" engines (two). Includes spacer for "E" engine hooks.

REGULAR ENGINE MOUNT KIT 303158
Fits BT-50, 55, 56 & 60 tubes. Plus can be used to make a conversion mount for lightweight D powered rockets.

D AND E ENGINE MOUNT KIT 303159
Heavy duty engine mounts for "D" and "E" engines. Fits BT-55, 60 and 80 tubes.

NC-5 NOSE CONE ASSORTMENT (5 pack) 303160

NC-20 NOSE CONE ASSORTMENT (4 pack) 303161

NC-50 NOSE CONE ASSORTMENT (5 pack) 303162

NC-55 NOSE CONE ASSORTMENT (4 pack) 303163

NC-56 NOSE CONE ASSORTMENT (4 pack) 303164

NC-60A NOSE CONE ASSORTMENT (4 pack) 303165

NC-80B NOSE CONE (1 pack) 303168

NOSE CONE ASSORTMENTS

Each package of nose cones contains a variety of shapes. Some are one piece, others two-piece. All have eyelets for shock cord and shroud line attachments.

LARGE TUBE COUPLER PACK 303196
Includes two couplers for BT-55, BT-56, and BT-60; One for BT-80.

BODY TUBES

High quality spiral wound paper tubes. Use tube couplers to connect tubes of the same diameter.

Four tubes per package with BT-5 & BT-20, three per package with BT-50, BT-55, and BT-60 & two per package in BT-80.

Product Number	Body Tube Size	Inside Dimension in./mm	Outside Dimension in./mm	Length in./cm
303084	BT-5	0.518/13.2	0.544/13.8	18.0/45.7
303085	BT-20	0.710/18.0	0.736/18.7	18.0/45.7
303086	BT-50	0.950/24.1	0.976/24.8	18.0/45.7
303087	BT-55	1.283/32.6	1.325/33.7	18.0/45.7
303089	BT-60	1.595/40.5	1.637/41.6	18.0/45.7
303090	BT-80	2.588/65.7	2.600/66.0	14.2/36.1



EDUCATOR™ PRODUCTS



FOR MORE DETAILS AND INFORMATION ON OUR MODEL ROCKET EDUCATIONAL SUPPLIES, SEE THE ESTES EDUCATOR™ CATALOG OR VISIT US AT: www.esteseducator.com

ESTES EDUCATOR™ MODEL ROCKET BULK PACKS

12 rockets per pack, complete with 12 sets of instructions and extra parts.

E2X® SERIES

Gnome™ Bulk Pack (See page 11 for rocket description) **I750**

Alpha III® Bulk Pack (See page 13 for rocket description) **I751**

Generic E2X® Bulk Pack (Pictured below) **I764**

SKILL LEVEL 1

Wizard™ Bulk Pack (See page 17 for rocket description) **I754**

Viking™ Bulk Pack (See page 19 for rocket description) **I755**

Alpha® Bulk Pack (See page 17 for rocket description) **I756**

SKILL LEVEL 2

Polaris™ Bulk Pack (Pictured below) **I791**



GENERIC E2X® BULK PACK

(E2X® Series)

SPECS: Length: 15 in.
(38.1 cm); Dia.: 0.98 in.

(24.8 mm); Wt.: 1.3

oz. (36 g); Recovery:

12 in. (30 cm)

Parachute; Fins: One

piece plastic molded;

Max. Altitude: 1100 ft.

(335 m);

Recommended

Engines: 1/2A6-2,

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

B6-6, C6-5, C6-7,



POLARIS™ BULK PACK

(Skill Level 2)

SPECS: Length:

18.75 in. (47.6 cm);

Dia.: 1.33 in. (33.8

mm); **Wt.:** 3.0 oz.

(85 g); **Recovery:** 12

in. (30 cm)

Parachute; **Fins:** Die

cut balsa **Max.**

Altitude: 700 ft.

(213 m);

Recommended

Engines:

A8-3, B4-4, B6-4,

C6-5

ESTES EDUCATOR™ MODEL ROCKET ENGINE BULK PACKS

Includes 24 engines and igniter plugs, 30 igniters and a package of recovery wadding - 75 sheets. (Pictured at right)

See pages 29-31 for engine descriptions.

1/2A3-4T Bulk Pack

A8-3 Bulk Pack

B6-4 Bulk Pack

B6-0/B6-6 Bulk Pack (12 each)

C6-5 Bulk Pack

Blast-Off® Flight Pack

(Includes 6 each: A8-3, B6-4, C6-3, C6-5)

I788

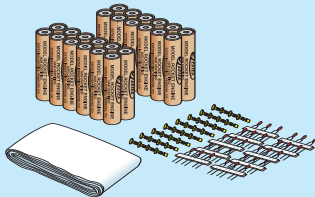
I781

I783

I784

I789

I672



ESTES EDUCATOR™ MODEL ROCKET ENGINE BULK PACK

CURRICULA

Ignite the Imagination™ Curriculum Guide

2852

(Pictured at right)

- For grades 5-8.
- Hands-on activities on model rockets and space.
- National Education Standards incorporated.

Additional Curricula, Technical Publications and Software available at: www.esteseducator.com



IGNITE THE IMAGINATION™ CURRICULUM GUIDE

ELECTRIC DUCTED FAN JET!

New!



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R/C JET**



**FLIGHT MASTER®
CONDOR™**



**FLIGHT MASTER®
RAVEN™**

New!



AERO X™

**GREAT
INDOOR FLYER!**

New!

**TWIN ELECTRIC
DUCTED FAN JET**



**55 IN (140 CM)
WINGSPAN**

**PRESIDENTIAL VIP
R/C AIRLINER**

**HELICOPTER
RECOVERY!**



**BOUNCE
RECOVERY!**

**CREATE
HYDROGEN
FUEL FROM
ORDINARY
TAP WATER!**



**GL-X200™ AIR ROCKET
SYSTEM**

HYDROGEN FUEL ROCKET™

**PUSH BUTTON
R/C CONTROL!**

**SKY RANGERS®
PEE WEE FLYER**



New!



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**FLASHES
LIGHTS &
BLASTS
SOUNDS ON
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PLAY PUCK**



New!



**LIGHTS
&
SOUNDS!**

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WITH LIGHTS & SOUND**

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ESTES SPECIALTY PRODUCTS

HYDROGEN FUEL ROCKET™ 1876

A revolutionary new way to launch rockets! Converts water into hydrogen fuel for unlimited launches. Sends one of two included rockets 200 feet (61m) into orbit. Includes hydrogen generating launch pad, remote launch controller & two ready to fly rockets. Ages 10+ with adult supervision for those under 12.

SPECS.: Launch Platform Length: 20.5 in. (52 cm)

Rocket Length: 11 in. (28 cm)

Recovery: Helicopter and Bounce

Max Altitude: 200 ft. (61 m)

Propellant: Hydrogen fuel from water

Power Supply: 6-"D" alkaline batteries - sold separately.

GL-X200™ AIR ROCKET SYSTEM 1880

Uses air-powered launcher to shoot one of two included rockets over 200 feet (61m) high! Comes complete with pump, launcher and two ready to fly rockets. Ages 10+.

SPECS: Rocket Length: 10.5 in. (26.7 cm)

Max. Altitude: 250 ft. (76 m); **Recovery:** Bounce

FLIGHT MASTER® RAVEN™ 4014 FLIGHT MASTER® CONDOR™ 4016

Wind 'em up...toss 'em into the wind...and let the flying adventures begin! Easy to build, scale looking, rubber band powered. Ages 8+.

SPECS: Wingspan: 15 in. (38.1 cm); **Length:** 13 in. (33 cm)

AERO X™ ELECTRIC INDOOR FLYER 4021

A free flight plane so small it flies indoors! Keeps flying even after contact with ceilings & walls. 10-second charge. Includes hand held charging launcher. Ages 8+.

Wingspan: 9 in. (22.9 cm) **Length:** 8 in. (20.3 cm)

Requires 3 - AAA Batteries - sold separately.

SKY RANGERS® R/C JET 4112

Scale looks-like-of the famous Blue Angels. Electric ducted fan. Single channel control. Crash resistant EPP foam construction. Includes 2 flight batteries. Complete and ready to fly. Includes charger and radio system. Ages 12+.

Wingspan: 30 in. (75.2 cm); **Length:** 25 in. (63.5 cm);

Freq: 27.145 MHz; **Range:** 750 ft. (229 m);
Requires 6 - AAA batteries - sold separately.

SKY RANGERS® PEE WEE FLYER & FIGHTER R/C PLANES 4115 4116

Miniature scale. Perfect for small park flying. Single channel control. Charges in less than 1 minute. Complete and ready to fly! Ages 10+. **Wingspan:** 14 in. (35.6 cm); **Length:** 12 in. (30.5 cm); **Freq:** 27.145 MHz; **Range:** 300 ft. (91m);
Requires 1-9 Volt & 6 - C size batteries - sold separately.

PRESIDENTIAL VIP R/C AIRLINER 4120

Air Force 2 look-a-like! Easy 2 channel control. Thrust vector steering provides trouble free flight control. Includes 2 flight batteries. Complete and ready to fly. Ages 12+.

Wingspan: 55in. (140cm); **Length:** 34in. (86.4cm);

Freq: 27.145MHz **Range:** 1000ft. (305m);
Requires 6 - AAA batteries - sold separately.

KICK DIS™ POWER PUCK LIGHTS & SOUNDS 8304

This fast moving 7-1/2 inch puck flashes lights and blasts sounds as it hovers on a cushion of air! Play indoors or out, on sidewalks, driveways, floors or low-pile carpet! Play soccer, hockey, bowling or create all sorts of fun and games. Includes wall charger & rechargeable battery. Ages 7+.

Dia.: 7.5" (19.1 cm)

SHOCKWAVE LIGHTS & SOUNDS PLAY PUCK 8306

Hit this wild 4-inch play puck and watch the lights and sounds blast as it slides across the floor! Four super bright strobes light up and four screaming sounds blast from the puck. Hit it, kick it, and slap it for hours of fun. Official play-book included. Ages 6+.

Dia.: 4 in. (10.2 cm). Includes 3 "AAA" batteries.

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RACE INTO SPACE WITH ANSARI X PRIZE ROCKETS FROM ESTES



CANADIAN ARROW

COLLECT 'EM!
BUILD 'EM!
LAUNCH 'EM!



LUCKY SEVEN



SPACE SHIP ONE

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X Prize
Winner!**

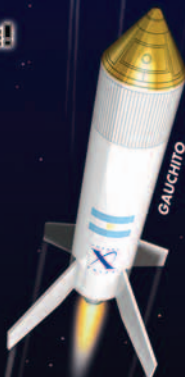
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