



#### **TABLE OF CONTENTS**

Index2	Skill Level 2 Rocket Kits30			
How To Start	Skill Level 3 Rocket Kits34			
What to Know	'E' Engine Powered Kits36			
Model Rocket Safety Code5	Blurzz <sup>™</sup> Rocket Racers36			
Ready To Fly Starter Sets 6	How Model Rocket Engines Work 38			
E2X® Starter Sets8	Model Rocket Engine Chart39			
Ready to Fly Launch Sets10	Engine Time/Thrust Curves40			
E2X® Launch Sets12	Model Rocket Accessories41			
Ready To Fly Rockets14	Estes Airplanes42			
E2X® Rocket Kits16	Estes Educator™ Products			
Skill Level 1 Rocket Kits22	Estes Specialty Products46			
INDEX				
220 Swift™	Nitro™ Launch Set			
Accessories	Nova Pavloader™ 25			
AeroX™ Interceptor™ R/C Mobile Launcher 44	NSA Starship™ Starter Set			
Air Force One Électric R/C Jet	Operation Search & Destroy™ Launch Set 11			
Air Power Action Hero	Oracle™         21           Outlander™         35			
Air Show™ Launch Set	Patriarch™. 15			
Alpha*23	Patriot™ Starter Set			
Alpha III*	Pop Fly™         19           Porta-Pot Shot™         27			
Astrocam® 11019	Presidential VIP Electric R/C Jet Airplane			
AstroVision™ Launch Set	Puma <sup>™</sup>			
Baby Bertha™         23           Bandito™         17	Quark™			
Big Bertha®	Riptide™ Launch Set			
Big Bertha®         25           Big Daddy™         37	Rocket Lab Packs			
Blue Ninja™	Rock-it™ Stone Age Flyer			
Blurzz™ Rocket Racers	Rubicon			
Bull Pup 12D™       33         CC Express™       31         Chrome Domes™ – Gold Series       21	Scissor Wing Transport™			
Chrome Domes™ – Gold Series	Shockivave Hout & Soling Play Plick 47			
Comanche-3™         35           Converter™         21	Shuttle Xpress™			
Cosmic Cobra™	Sky Hawker'			
Cosmos Mariner	Sky Rangers™ Micro R/C Airplane			
Cruise Missile™	Sky Rangers™ R/C Airplane			
Dragonite <sup>™</sup>	SnapShot™ Starter Set			
D-Region Tomahawk	SpaceShipOne*			
Eagle™ Boost Glider	SpaceShipOne® E-Powered			
Eggscaliber™	Speed Freak™ Starter Set			
Engine Lab Packs	Speed Freak™ Starter Set.       7         Spin Control™       7			
Engines	SR-71 Blackbird™			
Firehawk™	StormCaster™         25           Super Neon™         27			
Firestreak™ SST	SuperShot™ Mini RTF Combo			
Flight Master* ROG R/C Plane	SuperShot™ Race Set			
Generic E2X*	Tandem-X™ Launch Set 13			
Gnome™17	Thunderstar			
Guardian™	Thunderstar         33           UP Aerospace™ SpaceLoft™         45           U.S. Army Partiot M-104         27           Viking™         25           Wicked Streak™ SST Launch Set         13			
Hi-Flier*	Viking™			
Hydrogen Fuel Rocket with Lights & Sound 47	Wicked Streak™ SST Launch Set			
Hýper X™	Wizard™ 25			
Kíck Dis™ Power Puck	XB-39 Eagleye™ Electric R/C Digital Camera Plane. 43 X-100 Talon™ Air Power Rocket Plane			
Liquidator™	Yankee™			
Lucky Seven         17           Mean Machine™         37				
Mean Machine™        .37         Metalizer™        .21				
Mini Super Shot™ Starter Set				

#### **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 or Launch Set. You can either start with a Ready To Fly Starter Set or Launch Set that has a fully constructed model rocket or an EZX\* Starter Set or Launch Set with a rocket that requires assembly prior to launching. Both types of sets come complete with an electrical launch controller, adjustable launch pad and an information booklet to get you out and flying in no time. Starter Sets include engines, Launch Sets let you choose your own engines (not included). 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 five 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 1 hour or less.

**SKILL LEVEL 1 ROCKET KITS:** Requires some painting, gluing and sanding. Features laser 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.

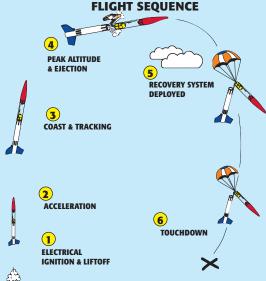
**SKILL LEVEL 2 ROCKET KITS:** First tier of more advanced kits. Requires beginner skills in model rocket construction and finishing. Features laser cut balsa or plastic fins, plastic nose cones and unfinished body tubes. Assembly may take a complete day.

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

# 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 massproduced model rocket engine and has produced the engines for over 48 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.



#### 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 38-40) of this catalog for more information.

#### **HOW DID IT ALL GET STARTED?**

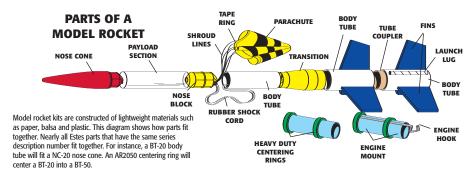
In the mid-1950s when the space age began, flying rockets became very popular. However, there were no safe propellants readily available to launch rockets. In 1958 Vernon Estes developed the first safe, mass-produced model rocket engine. The Estes rocket engine was destined to make model rocketry one 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 ROCKET TIPE web at 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.

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



#### 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 brandname rocket product containing any defect or causing any damage may void the Estes warranty.



most cas ccer or football fie e great launch are

#### **SESTES** 90 Day Limited Warranty

Do not return your Estes product to the store. Estes will repair or replace factory defects for 90 days from date of purchase. This warranty specifically does not cover crash damage or abuse!

For fast courteous service, if you find a defect or a part is missing, please contact Estes Customer Service at http://www.estesrockets.com/customerservice.php or call 1-800-525-7561. Call Monday through Friday, 8:00 am - 4:00 pm Mountain Time.

Obtain a Return Merchandise Authorization (RMA) number from Estes Customer Service before returning a defective part or product. Any part or product returned to Estes without a RMA number clearly marked on the shipping label will not be accepted. Send only the defective part(s). There may be additional charges if you send more than is necessary. Ship returns to: Estes-Cox Corp. 1295 H St., P.O. Box 227, Penrose, CO 81240-0227.

This warranty applies only if the product is operated in compliance with instructions and warnings provided with each model. Estes-Cox assumes no liability except for the exclusive remedy of repair or replacement of parts as specified above. Estes shall not be liable for consequential or incidental damages. Some states do not allow the exclusion 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.

#### **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 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 the 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 (N-sec)	Equivalent Motor Type	Minimum Site Dimensions	
		Feet	Meters
.00 - 1.25	1/4A, 1/2A	50	15
1.26 - 2.50	Α	100	30
2.51 - 5.00	В	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	NAR
•	NAR

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



## READY TO FLY STARTER SETS

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

4 'AA' Alkaline Batteries required - not included.

#### READY TO FLY (RTF) STARTER SETS

- Fully constructed and decorated rocket
- · Complete launch system with flight supplies
- Ready to fly in minutes
- Two engines included in each set



age. Must be 14 to purchase in California or

New Jersey.



#### RTF STARTER SETS

1414 SPIN CONTROL™

\$46.99

A new 'SPIN' on model rocketry! Adjust the Spin Control™ to spin from 0 to over 100 times per flight. The Electronic Nose Cone counts the number of spins per flight and displays the results on its LCD screen. Over 40 different combinations of spin set ups are possible. Count the spins then compare the results to see who wins - you or the rocket!

**Length:** 19 in. (48.3 cm); **Dia.:** 1.35 in. (34.3 mm) Wt.: 3.2 oz. (90.7 g); Fins: Plastic molded Recovery: 12 in. (30 cm) Parachute

Max. Altitude: 630 ft. (192 m)

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

1825 PATRIOT™

\$35.99 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.

Length: 18.0 in. (45.7 cm); Dia.: 1.35 in. (34.3 mm) Wt.: 2.7 oz. (75 g); Fins: Plastic molded Recovery: 12 in. (30 cm) Parachute

Max. Altitude: 600 ft. (183 m)

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

1827 NSA STARSHIP"

\$35.99

'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. (45.7 cm); **Dia.:** 1.35 in. (34.3 mm)

Wt.: 2.7 oz. (75 g); Fins: Plastic molded Recovery: 12 in. (30 cm) Parachute Max. Altitude: 600 ft. (183 m)

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

1848 SNAPSHOT

\$46.99

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. (45.7 cm); **Dia.:** 1.35 in. (34.3 mm)

Wt.: 3 oz. (86.2 g); Fins: Plastic molded Recovery: 12 in. (30 cm) Parachute Max. Altitude: 500 ft. (152 m) **Recommended Engine:** B6-4, C6-5

1889 SPEED FREAK™

\$46.99

How FAST does your rocket fly? Track the speed of the Speed Freak™ using the 'Advanced Velocity Tracking Technology' capsule. The capsule contains a digital speedometer that computes the speed of your rocket, flight after flight.

SPECS:

**Length:** 17 in. (43.2 cm); **Dia.:** 1.35 in. (34.3 mm)

Wt.: 2.6 oz. (74 g); Fins: Plastic molded Recovery: Rocket - 12 in. (30 cm) Parachute; Capsule - Streamer

Max. Altitude: 600 ft. (183 m)

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



# E2X® STARTER SETS

MISINE BIRE





MINI SUPER SHOT<sup>TM</sup>
STARTER SET



21IN. TALL! (55 CM)





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.

ASTRON® OUTLAW TM

#### **E2X\* STARTER SETS\***

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



#### LAUNCHABLES® STARTER SET



Colors may vary.



#### E2X® STARTER SETS

1406 ALPHA III®

\$27.99

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)

1431 MINI SUPER SHOT™

\$20.99

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

SPECS: Space Bus™

**Length:** 5.25 in. (13.3 cm) Dia.: 1.0 in. (25.4 mm) Wt.: 0.74 oz. (21.2 g) Max. Altitude: 700 ft. (213 m)

Space Hauler™

**Length:** 5.38 in. (13.7 cm) **Dia.:** 0.75 in. (19.1 mm) **Wt.:** 0.67 oz. (18.9 g) Max. Altitude: 760 ft. (231 m)

**Recovery:** Streamer Fins: Plastic molded

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

A10-3T (Includes two engines)

1452 LAUNCHABLES®

\$39.99

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. (Includes two engines)

Black Diamond™ (Skill Level 1)

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. (448 m)

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

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

Astron\* Outlaw™ (E2X\*)

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) Parachute
Fins: Plastic molded

Max Altitude: 600 ft. (183 m)

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

#### \* All starter sets require 4 - 'AA' alkaline batteries - not included

This catalog is FREE. If you bought it, call us at 800-525-7561



### READY TO FLY LAUNCH SETS

#### **ESTES LAUNCH SETS\***

Launch Sets are a great way to get started in model rocketry! They include a rocket (or two), versatile launch pad and reliable launch controller. Plus, you get to choose what Estes rocket engine(s) you'd like to use to launch your new rocket(s) by purchasing them separately.

TAKES DIGITAL MOVIES & PHOTOS!





SUPER SHOTTM RACE SET



#### **OPERATION** SEARCH & DESTROY™

ASTROVISI





SR-71 BLACKBIRD™



#### READY TO FLY LAUNCH SETS

1886 OPERATION SEARCH & DESTROY™ \$45.99

Burn up the atmosphere in the SR-71 Blackbird™ Mach 3 and the AGM-86B™ Cruise Missile! Both rockets are fully assembled with authentic décor and USAF markings. (Engines not included - sold separately)

SPECS:

SR-71 Blackbird™

**Length:** 19 in. (48.3 cm); **Wingspan:** 9.3 in. (23.5 cm)

Wt.: 2.4 oz. (67.3 g)
Recovery: 18 in. (46 cm) Parachute
Max. Altitude: 600 ft. (183 m)

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

AGM-86B™ Cruise Missile

Length: 9 in. (22.9 cm); Wingspan: 6 in. (15.2 cm)

Wt.: 1.4 oz. (30.6 g)
Recovery: 12 in. (30 cm) Parachute
Max. Altitude: 200 ft. (61 m)

**Recommended Engines:** A3-4T, A10-3T Produced under license from Boeing Management Company. Boeing, McDonnell Douglas, McDonnell, Douglas, North American Aviation, their distinctive liveries, logos, and product markings are among the trademarks owned by Boeing.

1888 SUPER SHOT™ RACE SET

3...2...1...RACE! First one off the dueling launch pad wins! Load up the Slash™ and Streak™ with a mini engine and you're off to the races. Deluxe carrying case converts into dueling launch pad. (Engines and 4 'D' alkaline batteries not included – sold separately)

SPECS: Slash™ & Streak™

Length: 5.25 in. (13.3 cm); Dia.: 0.63 in. (16 mm)

Wt.: 0.32 oz. (9 g)

Recovery: 9 in. (22.9 cm) Streamer

Max. Altitude: 700 ft. (213 m)

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

1891 SPACESHIPONE®

Fly a scale replica of SpaceShipOne\*, the Ansari X PRIZE winner. Designed by Burt Rutan of Scaled Composites, this is the first privately funded manned spacecraft to reach outer space. (Engines not included sold separately)

SPECS:

**Length:** 13 in. (33 cm); **Wingspan:** 6.5 in. (16.5 cm)

Recovery: 12 in. (30 cm) Parachute Max. Altitude: 400 ft. (122 m)

Recommended Engines: B4-2, B6-2, C6-3
X PRIZE is a registered frademark of the X PRIZE Foundation and is used by permission. SpaceShipOne is a registered trademark of Mojave Aerospace Ventures and is used by permission. Virgin and Virgin Galactic are registered trademarks of Virgin Enterprises IID and are used by permission.

1893 RIPTIDE™

\$26.99

Soar to new heights with the cool-looking Riptide rocket! This RTF rocket features chrome fins and nose cone. (Engines not included - 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

Max. Altitude: 600 ft. (183 m)

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

1899 ASTROVISION™

\$74.99

Take fantastic digital movies from liftoff to landing! Switch modes and take digital photos from over 300 feet high. Save the movies and photos to your laptop or PC with the included software and USB cable. (Engines not included - sold separately)

**Length:** 19 in. (48.3 cm); **Dia.:** 1.35 in. (34.3 mm) **Wt.:** 3.4 oz. (96 g); **Recovery:** 12 in. (30 cm) Parachute

Fins: Plastic molded Max. Altitude: 300 ft. (91 m)

Recommended Engines: B4-2, C6-3

Camera: 640 X 480 pixels, 72 dpi Requires Windows-based computer with CD-ROM and USB port. Uses one 'AAA' alkaline battery - sold separately.

\* Most Launch Sets require 4 'AA' alkaline batteries - not included.

11







#### **E2X® LAUNCH SETS**

1480 AIR SHOWTM

\$45.99

Create your own air show by launching two supersonic jets together! This set comes with the two jet gliders, launch equipment and reusable flight case. (Engines not included - sold separately)

SPECS:

Length: 16.5 in. (41.9cm) Wingspan: 12 in. (30 cm)

Wt.: 4.7 oz. (133 g)
Recovery: Engine Pod – 12 in. (30 cm) Parachute; Jets-Glide
Max. Altitude: 350 ft. (107 m)

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

**1481 TASER™** 

\$19.99

The Taser™ is an easy to build rocket kit. Just assemble the rocket, apply the decal and you're ready to launch. (Engines not included – sold separately)

SPECS:

**Length:** 16.5 in. (41.9 cm)

Vit: 1.5 oz. (42.5 g)

Recovery: 12 in. (30 cm) Parachute

Fins: Plastic molded Max. Altitude: 1,000 ft. (305 m)

**Recommended Engines:** À8-3, B4-4, B6-4, B6-6, C6-5, C6-7

1483 TANDEM-X™

\$24.99

The Tandem-X™ Launch Set offers Xtra value! The Crossfire ISX™ is a Skill Level 1 kit that will streak over 1,200 feet. The Amazon™ is an E2X® kit that's almost 3 feet tall! (Engines not included - sold separately)

Amazon™ (E2X\*)
Length: 33.6 in. (85.3 cm)
Dia.: 1.35 in. (34.3 mm)
Wt.: 3.3 oz. (94 g)
Fins: Plastic molded

Recovery: 18 in. (46 cm) Parachute Max. Altitude: 644 ft. (196 m)

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

Crossfire ISX™ (Skill Level 1) Length: 15.6 in. (39.6 cm)
Dia.: 0.98 in. (24.8 mm)
Wt.: 1.3 oz. (37 g)
Fins: Plastic molded

Recovery: 12 in. (30 cm) Parachute

Max. Altitude: 1,208 ft. (368 m)

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

B6-4, C6-3, C6-5

1484 WICKED STREAK™ SST

No fuss, no muss! Simply snap the Wicked Streak™ SST together and get out and launch this wicked rocket in minutes. (Engines not included – sold separately)

SPECS:

Length: 10.2 in. (25.9 cm)
Dia.: 0.885 in. (22.5 mm)
Wt.: 1.14 oz. (32.3 g)
Fins: Plastic molded

Recovery: 12 in. (30 cm) Streamer Max. Altitude: 350 ft. (107 m)

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

1485 NITRO™

Perfect for the first time rocketeer! With pre-decorated parts, it glues together in minutes. The Nitro™ flies over 700 feet using Estes mini-engines! (Engines not included - sold separately)

SPECS:

Length: 5.25 in. (13.3 cm) Dia.: 0.69 in. (18 mm) Wt.: 0.32 oz. (9 g) Recovery: Streamer

Fins: Plastic molded Max. Altitude: 700 ft. (213 m)

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

\* Most Launch Sets require 4 'AA' alkaline batteries - not included.



# READY TO FLY ROCKETS

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





#### READY TO FLY (RTF) ROCKETS

1847 CRUISE MISSILE"

\$13.59

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

**1887 SUPER SHOT™ MINI RTF COMBO** \$10.99

Shred the skies with the Sting Ray™ and Shark Attack™! These sleek, high-speed flyers scream to 700 feet high!

SPECS: Sting Ray™ & Shark Attack™

Length: 5.25 in. (13.3 cm)

Dia.: 0.69 in. (18 mm); Wt.: 0.32 oz. (9 g) Recovery: Streamer; Fins: Plastic molded

Max. Altitude: 700 ft. (213 m)

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

1894 SKY HAWKER™

\$12.99

The Sky Hawker™ rocket will prey on the clouds! This sleek bird soars over 1000 feet and returns to earth by parachute. **SPECS:** 

**Length:** 16.5 in. (41.9 cm) **Dia.:** 0.98 in. (25 mm); **Wt.:** 1.48 oz. (42.1 g) **Recovery:** 12 in. (30 cm); **Fins:** Plastic molded **Max. Altitude:** 1,000 ft. (305 m)

**Recommended Engines:** A8-3, B4-4, B6-4, C6-5, C6-7

1895 PATRIARCH™

The Patriarch™ looks a like a long-range ballistic missile used in the National Missile Defense System. It blasts 600 feet into the sky. The special CLEAR FINS make this rocket look like a real missile.

SPECS:

**Length:** 18.0 in. (45.7 cm) **Dia.:** 1.35 in. (34 mm); **Wt.:** 2.7 oz. (75 g)

Recovery: 12 in. (30 cm) Parachute; Fins: Plastic molded Max. Altitude: 600 ft. (183 m)

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

1896 PUMA™

\$9.99

The Puma™ rocket scratches through the clouds! This sleek cat will soar up to 800 feet using a mini-engine and returns to earth with a 9 inch hi-viz orange streamer.

SPECS:

Length: 10.3 in. (26 cm)

Dia.: 0.54 in. (13.8 mm); Wt.: 0.4 oz. (12 g) Recovery: Streamer; Fins: Plastic molded

Max. Altitude: 800 ft. (244 m)

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

1807 SNITCH™

\$12.59

Travel out of this world with this hot, neon-colored flying saucer.

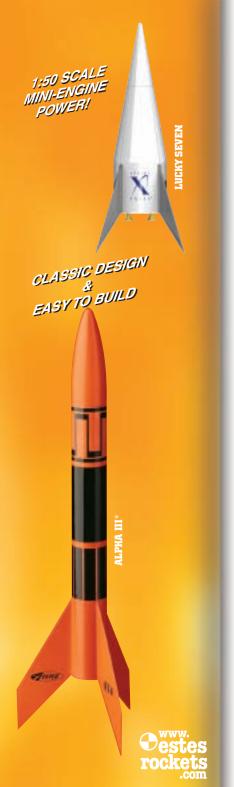
SPECS:

**Dia.:** 7.75 in. (19.7 cm) **Wt.:** 2.1 oz. (59 g) **Recovery:** Spring action **Max. Altitude:** 120 ft. (37 m)

Recommended Engines: B6-0, C6-0

E2X\* ROCKET KITS
• Easy to Assemble
• No Painting HIGH FLYING HIGH PERFORMANCE FIN DESIGN

Colors may vary.



#### E2X® ROCKET KITS

0803 BANDITO™

\$6.99

The high-flying Bandito™ sport rocket can be easily assembled in under an hour. Includes pre-colored

slotted body tube and plastic parts. **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

#### 0804 FIREHAWK™

\$6.99

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.

**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

#### 0806 FIRESTREAK™ SST

\$6.99

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. (25.9 cm) **Dia.:** 0.885 in. (22.5 mm) **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

#### **0807 LUCKY SEVEN**

\$7.99

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. Easy assembly. 1:50 scale.

**SPECS: Length:** 7.9 in. (20 cm) **Dia.:** 1.63 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

#### **0886 GNOME**\*

\$8.89

Eye-dazzling, chrome rocket soars to heights of 800 ft. (244 m). 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. (13.7 mm)

Wt.: 0.4 oz. (12 g)
Recovery: Streamer
Fins: Plastic molded

Max. Altitude: 800 ft. (244 m)

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

#### 1256 ALPHA III®

\$15.9

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)

**Wt.:** 1.2 oz. (34 g) **Recovery:** 12 in. (30 cm) Parachute

Fins: 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



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

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



#### **E2X® ROCKET KITS**

1260 NO. 2 ESTES SKY WRITER<sup>®</sup>

\$8.99

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: Plastic molded Max. Altitude: 1100 ft. (335 m)

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

#### 1262 COSMIC COBRA™

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

#### **1300 BLUE NINJA**™

\$16.99

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.

#### 1327 ASTROCAM® 110

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

#### 2027 POP FLY™

\$16.99

The Pop Fly™ is a one-of-a-kind interactive rocket! A ball is launched atop a bat shaped rocket that "pops off" at the peak of its flight to create a major league pop fly. Play catch with the ball while the 'bat' returns with a parachute! Major league fly balls - Major League Fun!

SPECS.:

Length: 24.0 in. (61 cm) Dia.: 2.0 in. (51 mm) Wt.: 1.8 oz. (51 g)

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

Max. Altitude: 300 ft. (91 m)

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







#### E2X® ROCKET KITS

2029 CONVERTER™ \$14.99 The Converter "rocket is a collection of four screw together body tubes that assemble at the field into a rocket 24 inches to over 40 inches long! Change the length of the rocket after each launch and record the differences!

SPECS: Length: 38.5 in. (97.8 cm)
Dia: 1.35 in. (34.3 mm); Wt.: 4.7 oz. (134 g)
Recovery: 18 in. (46 cm) Parachute; Fins: Plastic molded
Max. Altitude: 750 ft. (229 m) **Recommended Engines:** B4-2, B4-4, B6-2, B6-4, C6-3, C6-5

2168 METALIZER™

Get your shades out (sunglasses not included)! This baby reflects some rays with its awesome metallic chrome finish. The Metalizer™ will get you out launch-

SPECS: Length: 22.5 in. (57.2 cm)
Dia.: 1.35 in. (34.3 mm); Wt.: 2.4 oz. (68 g)
Recovery: 12 in. (30 cm) Parachute; Fins: Plastic molded
Max. Altitude: 760 ft. (232 m)
Recommended Engines: A8-3, B4-4, B6-4, C6-5

2169 DRAGONITE™

The Dragonite™ is as much fun to put together as it is to The Dragonite' is as much fun to put together as it is to fly! Just snap the pre-colored parts together (no cutting or painting), apply the colorful decals and you're ready to fly in minutes. It's perfect for the first-time rocketeer! SPECS: Length: 16 in. (40.6 cm)

Dia.: 1.09 in. (28 mm); Wt.: 1.8 oz. (52 g)

Recovery: 12 in. (30 cm) Parachute; Fins: Plastic molded Max. Alfitude: 1,129 ft. (344 m)

Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7

2181 CHROME DOMES **GOLD SERIES** 

\$12.49

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

comes in a variety or prising as consistent experiencely).

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

2183 SHUTTLE XPRESS"

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 - Glide
Fins: Plastic molded

Max. Altitude: 586 ft. (179 m)

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

2186 EAGLE" BOOST GLIDER

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 power pours nearly routiproof and takes the complexit 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) Streamer & Glider

Fins: Die cut foam

Max Altitude: 500 ft. (152 m)

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

2187 ORACLE

\$129.99

The easy-to-use video camera allows you to capture Ine easy-to-use video camera allows you to capture digital movies from liftoffs to landings. Save the movies to your computer using the included software and USB cable. Resolution is 320 x 240 Pixels (CIF).

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

May Allitude: 600 ft (183 m)

Max Altitude: 600 ft. (183 m)
Recommended Engines: D12-3, D12-5

Requires Windows-based computer, with CD-ROM drive and USB port. Requires one 'AAA' alkaline battery - sold separately. Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.







0651 DER RED MAX™

\$19.99

Far-out super fun model! Large stable design gives great sport performance. Freaky "Red Max" decal sheet, molded plastic nose cone and laser cut fins.

SPECS:

Length: 16.25 in. (41.3 cm)

**Wt.:** 2.38 oz. (67 g) **Recovery:** 18 in. (46 cm) Parachute

Max. Altitude: 593 ft. (180.74 m) Fins: Laser cut balsa

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

0802 OVARK\*\*

\$5.59

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).

SPECS:

**Length:** 5.2 in. (13.2 cm) **Dia.:** 0.54 in. (13.7 mm) **Wt.:** 0.1 oz. (3 g) Recovery: Featherweight Fins: Laser cut balsa Max. Altitude: 700 ft. (213 m)

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

**0809 GAUCHITO** 

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 Estes mini engines. 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: 1/2Á3-2T, A3-4T, A10-3T

0810 220 SWIFT

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: Laser cut balsa Max. Altitude: 750 ft. (229 m)

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

1225 ALPHA®

\$12.69

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: Laser 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

1261 BABY BERTHA

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: Laser cut balsa

Max. Altitude: 575 ft. (175 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5







1292 WIZARD

\$8.99

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.: 0.5 oz. (14.2 g) Recovery: Streamer Fins: Laser cut balsa

**Max. Altitude:** 1692 ft. (516 m) **Recommended Engines:** 1/2A6-2, A8-3, A8-5, B4-4, B6-4,

B6-6, C6-5, C6-7

1301 STORMCASTER™

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: Laser cut balsa

Max. Altitude: 930 ft. (283 m) Recommended Engines: C11-3, D12-5 Requires 3/16 in. (5 mm) Maxi™ launch rod

(302244) - sold separately.

**1381 YANKEE** A rocket with All-American performance - screams to 1850 ft. (564 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: Laser cut balsa

Max. Altitude: 1850 ft. (564 m)
Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4,

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

1948 BIG BERTHA® 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: Laser cut balsa Max. Altitude: 500 ft. (152 m)

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

1949 VIKING" 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: 1698 ft. (518 m) Recommended Engines: 1/2A6-2, A8-3, A8-5, B4-4,

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

1960 NOVA PAYLOADER™ Clear payload capsule, lightweight design and high altitude performance combine to make this a great cargo carrying rocket! SPECS:

Dia:: 0.98 in. (53.6 cm)
Dia:: 0.98 in. (25 mm)
Wt:: 1.3 oz. (38 g)
Recovery: 12 in. (30 cm) Parachute
Fins: Laser cut balsa
Max. Altitude: 1000 ft. (305 m)

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



PERFECT 'E'
ROCKET FOR
1ST TIME
SCALE
BUILDERS!

EGION TOMAHAWK

DESERT STORM VETERAN!

BRING BACK OF A CLASSIC TUBE FIN DESIGN!

U.S.ARI

U.S. ARMY PATIFIC



**2037 D-REGION TOMAHAWK** \$34.99 This awesome D and E engine rocket is a 1:5 scale

model of NASA's sounding rocket that was launched to the D layer of the ionosphere in 1968. The realistic D-Region Tomahawk includes detailed parts, waterslide decals and a D engine adapter.

Dia: 1.8 in. (98.6 cm)
Dia: 1.8 in. (45.7 mm)
Wt.: 9.2 oz. (260 g)
Recovery: 18 in. (46 cm) Parachute
Fins: Laser cut balsa
Max. Altitude: 787 ft. (240 m)
Recommended Engines: D12-5, E9-6\*

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

(302244) - sold separately.

2050 SUPER NEON™ \$14.99

Hot neon and cool color scheme plus special tubular flight stabilizers will make this a favorite to build and fly. Watch it soar to heights of 1000 feet!

SPECS: Length: 22.13 in. (56.2 cm)

Dia.: 0.98 in. (25 mm)
Wt.: 1.7 oz. (48 g)
Recovery: 12 in. (30 cm) Parachute
Fins: Laser cut balsa

Max. Altitude: 1,105 ft. (337 m)

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

**2056 U.S. ARMY PATRIOT M-104** \$12.99 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: 21.3in. (54.1 cm)
Dia.: 1.637 in. (41.6 mm)
Wt.: 1.95 oz. (55 g)
Recovery: 12 in. (30 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 600 ft. (183 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5

2145 PORTA-POT SHOT™

The Porta-Pot Shot™ is sure to attract the most attention at rocket launches. This unique rocket comes with a molded foam body, detailed plastic roof and clear plastic fins. It really does fly, over 300 feet high!

SPECS:

Length: 8.0 in. (20.3 cm) Dia.: 3.25 in. (8.3 cm)

Wt.: 4.2 oz. (117.5 g)
Recovery: 12 in. (30 cm) Parachute

Fins: Plastic molded

Max. Altitude: 309 ft. (94 m)

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

\* Use of E engines is recommended for those 18 years and older. Adult supervision recommended for those under 18.



This catalog is FREE. If you bought it, call us at 800-525-7561

\$18.99







2121 LIOUIDATOR™

Launch liquids into Space! The Liquidator™ includes a water-tight payload capsule that lets you launch a payload of water, gelatin, soda or whatever liquid you want. Rocket up some fruit juice and when it returns, pretend its moon juice! Great for science class payloads, too.

SPECS:

Length: 27.0 in. (68.6 cm)

Dia.: 1.0 in. (25.4 mm)

Wt.: Empty - 5.7 oz. (161 g)

Recovery: 12 in. (30 cm) Parachute & 18 in. (46 cm)

Nylon Parachute Fins: Plastic molded

Max. Altitude: Empty - 626 ft. (191 m)

Recommended Engines: D12-3, D12-5 (with or

without payload)

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

(302244) - sold separately.

2171 SIZZLER®

\$12.29

Burn up the sky with the Sizzler®! This rocket scorches through the atmosphere with flights over 1600 ft. (488 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: Laser cut balsa

**Max. Altitude:** 1686 ft. (514 m) **Recommended Engines:** 1/2A6-2, A8-3, A8-5, B4-4,

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

2178 HI-FLIER®

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: Laser cut balsa

Max. Altitude: 1690 ft. (515 m)

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

2189 RUBICON

\$30.99

Designed after the Space Transport X Prize spacecraft, the mighty rocket blasts off on a powerful D engine reaching 450 feet in altitude. Once at peak altitude, a fully assembled 18 in. parachute is ejected for a slow, safé 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. (46 cm) Parachute

Fins: Plastic molded

Max. Altitude: 450 ft. (137 m) Recommended Engines: D12-3, D12-5

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

(302244) - sold separately.



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

SCREAMING EAGLE®

HIGH FLYING

'D' ENGINE CLUSTER

 $36~ extbf{D}~ extbf{SQUARED}^{ exttt{Th}}$ 



1302 CC EXPRESS"

\$15.59

The CC Express™ is a high-flying, two-stage rocket powered by D engines. It soars to 1790 ft. (546 m) in

**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: Laser cut balsa

Max. Altitude: 1790 ft. (546 m)
Recommended Engines: Single Stage - D12-5 Two-Stage: Booster - D12-0; 2nd Stage - D12-7 Requires 3/16 in. (5 mm) Maxi™ launch rod (302244)

sold separately.

2117 SCREAMING EAGLE® This cool-looking rocket looks great just sitting in the hangar, but screams to be out flying with other eagles. The Eagle is a superbly detailed model with awesome markings that will be the envy of all rocketeers.

Decorate it with waterslide décals. **SPECS: Length:** 16.75 in. (42.5 cm)

Dia.: 1 in. (25.4 mm)
Wt.: 2.3 oz. (65.2 g)
Recovery: 12 in. (30 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 600 ft. (183 m) Recommended Engines: A8-3, B4-4, B6-4, C6-5

2119 36 D SQUARED™

\$25.99

The one you've been dreaming about! It's got the full package. Sleek, yet full body design, a payload section, laser cut fins and waterslide decals. This rocket launches

on two Estes D size model rocket engines. **SPECS: Length:** 36 in. (91.4 cm) **Dia.:** 2.217 in. (56.3 mm)

Wt.: 5.7 oz. (162 g) Recovery: 24 in. (61 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 800 ft. (244 m)

Recommended Engines: 2 each D12-3, 2 each D12-5, 2 each D12-

(DO NOT MIX ENGINE SIZES WHEN LAUNCHING) IMPORTANT: Requires 3/16 in. (5 mm) Maxi™ rod (302244) – sold separately. The Estes E™ Controller (#2230) is recommended to launch this two-engine cluster - sold separately.

2123 EGGSCALIBER™

\$16.99

Launch eggs on four different engines sizes using the same rocket! Eggscaliber™ includes an adapter to launch an egg on B & C engines or remove it to use D and E engines. Includes a set of decals to decorate your egg into your favorite "eggstronaut."

SPECS: Length: 20 in. (51 cm)

Dia.: 1.35 in. (34.2 mm)
Wt. (without egg): 2.6 oz. (74 g)
Recovery: 12 in. (30 cm) Parachute and 18 in. (46 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 610 ft. (186 m)

Recommended Engines: With egg – B6-2, C6 – 3, C11-3, D12-3, E9-4\*; Without egg – B4-2, B6-2, C6-5, D12-5, E9-6\*. Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) sold separately.

2146 ROCK-IT™ STONE AGE FLYER

\$17.99

Maybe this is what the first rocket ever launched looked like! Don't let the Rock-it™ fool you. Under its rocky exterior are a pre-shaped 'rock' nose cone and a sleek design that lets this rock fly over 500 feet high.

SPECS: Length: 19.25 in. (48.9 cm)

Dia: 2.6 in. (66 mm); Wtt. 5.3 oz. (150 g)

Recovery: 18 in. (46 cm) Parachute; Fins: Laser cut balsa

Max. Altitude: 540 ft. (165 m)

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





1:30 SCALE 1<sup>ST</sup>PRIVATE MANNED SPACESHIP!

SpaceShipOne\* is a registered trademark of Mojave Aerospace Ventures and is used by permission.

Virgin and Virgin Galactic are registered trademarks of Virgin Enterprises LTD and are used by permission.



2179 GUARDIAN"

\$12.49

The Guardian™ rocket simulates a ground-to-air mis-sile. 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: Laser cut bàlsa

Max. Altitude: 723 ft. (220 m)

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

#### 2190 COSMOS MARINER

\$32.99

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. 1:67 scale.

Length: 18 in. (45.7 cm) Wingspan: 13.5 in. (34.3 cm) Dia.: 1.637 in. (41.6 mm) Wt.: 8.6 oz. (243.6 g)

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

Fins: Laser cut balsa

Max. Altitude: 250 ft. (76 m) Recommended Engine: D12-3

Requires 3/16 in. (5 mm) Maxi™ Rod (302244) -

sold separately.

#### 2191 SPACESHIPONE®

\$18.59

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. 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

#### 2192 THUNDERSTAR

Designed by Starchaser Industries, the Thunderstar X Prize entry uses a cluster of two Estes engines to reach 1000 feet in the air. At apogee, a fully assembled 18 inch parachute is deployed allowing for a safe recovery. 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 ENGINE SIZES WHEN LAUNCHING)

#### **7000 BULL PUP 12D**\*\*

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)

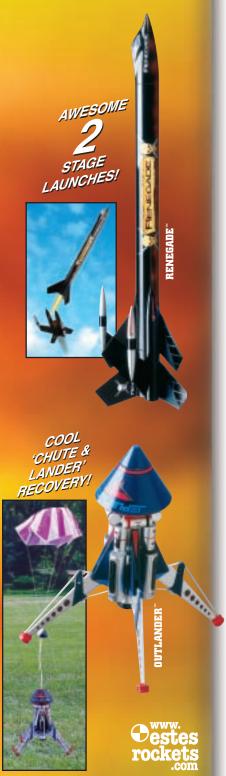
Wt.: 1.8 oz. (51 g)
Recovery: 12 in. (30 cm) Parachute Fins: Laser cut balsa Max. Altitude: 675 ft. (206 m)

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



· The construction and flying of these kits require a higher level of skill





1265 SCISSOR WING TRANSPORT™ \$22.49

This classic rocket boosted glider with revolutionary swing-wing recovery is back! Launches as a rocket recovers as a glider! 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: Glide & 12 in. (30 cm) Parachute

Fins: Laser cut balsa Max. Altitude: 750 ft. (229 m)

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

#### 1382 COMANCHE-3™

\$20.99

A D engine powered booster stage rocket that roars to ultra high altitudes - over half a mile (805 m) high! Updated with laser cut balsa fins and waterslide decals.

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: Laser 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: D12-0 Second Stage: C6-0; Third Stage: B6-6, C6-7. Requires 3/16 in. (5 mm) Maxi™ launch rod (302244) - sold separately.

#### 1942 SR-71 BLACKBIRD™

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: Laser cut balsa

Max. Altitude: 600 ft. (183 m)

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

#### 2109 RENEGADE™

Going staged is awesome! Witness a magnificent liftoff 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: Laser cut balsa

Max. Altitude: 850 ft. (260 m)

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

#### 2110 OUTLANDER™

Get ready to explore the outer rim of the galaxy with the Outlander™. It's stellar-looking design and decals compliment 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: Laser cut balsa

Max. Altitude: 200 ft. (61 m)

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

This catalog is FREE. If you bought it, call us at 800-525-7561



## YAMAD 'E' ENGINE POWERED ROCKET KITS

- For ages 18 and up. Adult supervision
- Requires Estes Porta-Pad® E Launch Pad (2238) and E™ Launch Controller (2230) for use sold separately

FLIES OVER 1400 FT. HIGH!







ш

### **STATE** BLURZZ™ ROCKET RACERS

\$33.99 EACH



**BLURZZ™ ROCKET RACERS** 9114 DRAGSTER **SPECS:** 

Hength: 14 in. (35.6 cm)

Wheelbase: 4.5 in. (11.4 cm)

Recommended Engine: Blurzz™ A10-PT Race Engine ONLY

Assorted Colors: Red, Blue, Green

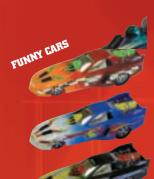
9120 FUNNY CAR W/ DIGITAL SPEEDOMETER (CAR ONLY) \$22.49 EACH

**SPECS:** 

Under the State of the State o

Blurzz™ Rocket Racers are for ages 12 and over only.







1295 MEAN MACHINE™

Back and meaner than ever! Fly it on Estes E engines and soar over 900 feet high! That's not all! Includes waterslide decals, D engine adapter and a new CON-NECTOR to break it down for easy transport.

SPECS:

**Length:** 79.0 in. (200.6 cm) Dia.: 1.64 in. (41.7 mm)

Wt.: 5.8 oz. (164 g)
Recovery: 24 in. (61 cm) Parachute

Fins: Laser cut balsa Max. Altitude: 941 ft. (287 m)

Recommended Engines: D12-3, D12-5, E9-4, E9-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod (302244)

sold separately.

1950 ELIMINATOR"

\$27.99

Reach new heights with this quick-build, high-flying sport rocket. The Eliminator™ comes with colored body tubes, nose cone and fin unit.

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: Plastic molded

Max. Altitude: 1420 ft. (433 m)

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

1951 EXECUTIONER™

\$49.99

Huge rocket stands over 3 ft. (0.9 m) tall! The Executioner™ comes with a slotted body tube for pre-

cise 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

2162 BIG DADDY™

\$29.99

Re-designed to fly twice as high using Estes E engines. It will fly on Ds as well. Waterslide decals and a contemporary new look may just answer the question... "Who's Your Daddy?'

SPECS: Skill Level: 2 Length: 19 in. (48.3 cm) Dia.: 3 in. (76.2 mm) Wt.: 5.3 oz. (150 g)

Recovery: 24 in. (61 cm) Parachute

Fins: Laser cut balsa

Max. Altitude: 900 ft. (274 m)

Recommended Engines: C11-3, D12-3, D12-5, E9-4, E9-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod (302244)

sold separately.

2196 SPACESHIPONE®

\$69.99

Large, 1:15 scale version of the famous Ansari X PRIZE winner. It's launched by a powerful Estes E engine and is

an actual replica of Burt Rutan's design.

SPECS: Skill Level: 3 Length: 26 in. (66 cm) Wingspan: 12.8 in. (32.5 cm)

Dia.: 4 in. (102 mm)

Wt.: 11 oz. (311 g)
Recovery: 18 in. (46 cm) Nylon Parachute Max. Altitude: 600 ft. (183 m)

Recommended Engines: E9-4, É9-6 Requires 3/16 in. (5 mm) Maxi™ Launch Rod (302244)

sold separately.

# **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 315,000,000 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?

- I. 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.

# LIFTOFF AND ACCELERATION COAST PHASE AND TRACKING SMOKE TO ACTIVATE RECOVERY SYSTEM

1.75 in. (4.4 cm)

long

MINI ENGINE – 2.75 in. (7.0 cm) – long

STANDARD ENGINE - 2.75 in. (7.0 cm) long

'CII' & 'D' ENGINE

3.75 in. (9.5 cm) long -

ESTES.

ESTES

A10-3T SESTES

**B6-4** 

D12-3

E9-4

A8-3 ESTES

DELAY FOR

CLAY NOZZLE

PROPELLANT FOR

MODEL ROCKET ENGINE

PAPER CASING

CLAY RETAINER CAP

**EJECTION CHARGE** 

0.5 in. (13 mm)

diameter

0.69 in. (18 mm)

diameter

0.95 in.

(24 mm)

diameter

0.95 in.

(24 mm)

#### 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
Α	1.26 - 2.50	Standard, Mini
В	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.).

# ESTES. diameter 'E' ENGINE

# 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".



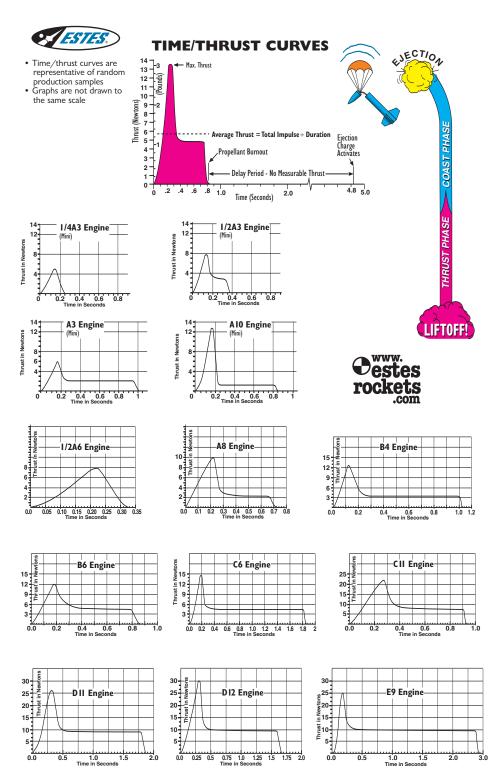
# **ENGINE CHART**

- 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	Ma Lift		Ma Thr		Thrust Duration	Init Wei		Prop We	ellant eight	Retail /Pkg*
		N-sec	Sec.	Oz.	g	Newtons	Lbs.	Sec.	Oz.	g	Oz.	g	\$
SING	LE STAGE ENC	INES (G	REEN L	ABEL)									
1502	1/4A3-3T	0.625	3	1.0	28	4.9	1.1	0.25	0.20	5.6	0.03	0.85	\$7.69
1503	1/2A3-2T	1.25	2	2.0	57	8.3	1.9	0.3	0.20	5.6	0.06	1.75	\$7.69
1507	A3-4T	2.50	4	2.0	57	6.8	1.5	0.6	0.27	7.6	0.12	3.50	\$7.69
1511	A10-3T	2.50	3	3.0	85	13.0	2.9	0.8	0.28	7.9	0.13	3.78	\$7.69
1593	1/2A6-2	1.25	2	2.0	57	8.9	2.0	0.3	0.53	15.0	0.06	1.56	\$7.69
1598	A8-3	2.50	3	3.0	85	10.7	2.4	0.5	0.57	16.2	0.11	3.12	\$7.69
1601	B4-2	5.00	2	4.0	113	13.2	3.0	1.1	0.70	19.8	0.29	8.33	\$7.99
1602	B4-4	5.00	4	3.5	99	13.2	3.0	1.1	0.74	21.0	0.29	8.33	\$7.99
1605	B6-2	5.00	2	4.5	127	12.1	2.7	0.8	0.68	19.3	0.22	6.24	\$7.99
1606	B6-4	5.00	4	4.0	113	12.1	2.7	0.8	0.71	20.1	0.22	6.24	\$7.99
1613	C6-3	10.00	3	4.0	113	15.3	3.4	1.6	0.88	24.9	0.44	12.48	\$8.99
1614	C6-5	10.00	5	4.0	113	15.3	3.4	1.6	0.91	25.8	0.44	12.48	\$8.99
1622	C11-3	10.00	3	6.0	170	22.1	4.9	0.8	1.14	32.2	0.39	11.00	\$10.99
1666	D12-3	20.00	3	14.0	396	32.9	7.4	1.6	1.49	42.2	0.88	24.93	\$12.99
1667	D12-5	20.00	5	10.0	283	32.9	7.4	1.6	1.52	43.1	0.88	24.93	\$12.99
1673	E9-4	30.00	4	15.0	425	25.0	5.6	2.8	2.00	56.7	1.27	35.80	\$18.49
1674	E9-6	30.00	6	12.0	340	25.0	5.6	2.8	2.00	56.7	1.27	35.80	\$18.49
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	\$7.69
1599	A8-5	2.50	5	2.0	57	13.3	3.0	0.5	0.62	17.6	0.11	3.12	\$7.69
1607	B6-6	5.00	6	2.5	71	12.1	2.7	0.8	0.78	22.1	0.22	6.24	\$7.99
1615	C6-7	10.00	7	2.5	71	15.3	3.4	1.6	0.95	26.9	0.44	12.48	\$8.99
1668	D12-7	20.00	7	8.0	226	32.9	7.4	1.6	1.55	44.0	0.88	24.93	\$12.99
1675	E9-8	30.00	8	10.0	283	25.0	5.6	2.8	2.00	56.7	1.2	35.80	\$18.49
BOO	STER STAGE EI	NGINES (	RED LA	BEL)									
1616	C6-0	10.00	None	4.0	113	15.3	3.4	1.6	0.80	22.7	0.44	12.48	\$8.99
1665	D12-0	20.00	None	14.0	396	32.9	7.4	1.6	1.44	40.9			\$12.99
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	\$7.69
1669	D11-P	20.00	None	16.0	453	27.6	6.2	1.8	1.55	44.0	0.88	24.93	\$12.99

The data listed above is from randomly chosen production samples. NOTE: The "T" designates a mini engine.

<sup>\*</sup> There are 4 mini engines per package. All other engines are 3 per package.





# **MODEL ROCKET ACCESSORIES**

1463 DESIGNER'S SPECIAL\$64.99 Contains parts to design and build 7-8 of your own rockets.	302271 24 in. (61 cm) PARACHUTE (Assembled)\$7.39		
1672 BLAST-OFF* FLIGHT PACK	302274 RECOVERY WADDING		
2230 E™ LAUNCH CONTROLLER	302278 SHOCK CORDS & MOUNT PACK\$4.59 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.		
2238 PORTA-PAD® E LAUNCH PAD\$33.99 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 <sup>**</sup> launch rod - not included. Adult super-	<b>302301 MODEL ROCKET IGNITERS</b> \$4.99 Dependable, easy-to-use Estes igniters in a convenient six pack. It's always a good idea to have a few spares.		
vision required for anyone under 18 when launching 'E' engine powered rockets.	302320 LAUNCH LUG PACK		
302215 PORTA-PAD® II LAUNCH PAD \$27.49 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.	303143 ENGINE HOOK ACCESSORY PACK\$5.59 Hooks fit mini engines (one), regular and 'D' engines (three) and 'E' engines (two). Includes spacer for 'E' engine hooks.		
302220 ELECTRON BEAM* LAUNCH CONTROLLER \$29.99 Launch controller comes complete with safety key and 17 ft. (5.2 m) of cable. Requires four 'AA' alkaline batter-	<b>303158 REGULAR ENGINE MOUNT KIT</b>		
ies - not included.  302227 TUBE MARKING GUIDE	303159 D AND E ENGINE MOUNT KIT		
Also includes a fin gluing jig.  302232 ALTITRAK™\$26.99	<b>NOSE CONE ASSORTMENTS</b> Each package of nose cones contains a variety of shapes. Some are one piece, others two-piece. All have eyelets		
Measure altitude with this easy to use device. Follow the rocket in the sights to apogee, release the trigger to lock the reading.	for shock cord and shroud line attachments.  303160 NC-5 NOSE CONE ASSORTMENT (5 pack)\$9.79		
302233 EMERGENCY REPAIR KIT	303161 NC-20 NOSE CONE ASSORTMENT (4 pack)\$9.79		
	303162 NC-50 NOSE CONE ASSORTMENT (5 pack)\$9.79		
	303163 NC-55 NOSE CONE ASSORTMENT (4 pack)\$11.99		
Replaces that worn-out deflector.	303164 NC-56 NOSE CONE ASSORTMENT (4 pack) \$9.49		
<b>302243 1/8 in. (3 mm) TWO-PIECE LAUNCH ROD \$12.49</b> Replacement rod; ideal for most rockets.	303165 NC-60A NOSE CONE ASSORTMENT (4 pack)\$9.49		
302244 3/16 in. (5 mm) TWO-PIECE MAXI™ LAUNCH ROD \$14.99 Launch rod with extra strength and length for larger rockets.	303168 NC-80B NOSE CONE (1 pack)\$6.79		
302264 12 in. (30 cm) PARACHUTE (Assembled)\$6.29	303196 LARGE TUBE COUPLER PACK\$9.49 Includes two couplers for BT-55, BT-56, and BT-60; One for BT-80.		
302267 18 in. (46 cm) PARACHUTE (Assembled)\$6.89			

## **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, BT-56 and BT-60 & two per package in BT-80.

Product Body Tube Size		Inside Dimension in./mm	Outside Dimension in./mm	Length in./cm	Retail Price	
303084	BT-5	0.518/13.2	0.544/13.8	18.0/45.7	\$7.59	
303085	BT-20	0.710/18.0	0.736/18.7	18.0/45.7	\$7.49	
303086	BT-50	0.950/24.1	0.976/24.8	18.0/45.7	\$8.39	
303087	BT-55	1.283/32.6	1.325/33.7	18.0/45.7	\$8.39	
303088	BT-56	1.304/33.1	1.346/34.2	18.0/45.7	\$8.39	
303089	BT-60	1.595/40.5	1.637/41.6	18.0/45.7	\$9.49	
303090	BT-80	2.588/65.7	2.600/66.0	14.2/36.1	\$9.49	



ESTES PLANES

TWIN ELECTRIC DUCTED FAN JET

55 IN. (140 CM) WINGSPAN

PRESIDENTIAL VIP R/C AIRLINER

I-OUR ENGINES!

# AIR FORCE ONE PRESIDENTIAL R/C AIRLINER

Produced under license from Boeing Management Company. Boeing, McDonnell Douglas, McDonnell, Douglas, North American Aviation, their distinctive liveries, logos, and product markings are among the trademarks owned by Boeing.

TAKES AWESOME PICTURES!

XB-39 EAGLEYE® DIGITAL CAMERA R/C PLANE

Colors may vary.

Eagleye is a registered trademark of ETI. LLC and used with permission.

All Estes R/C Electric Planes come with transmitter, charger, flight batteries and installed electronics.







#### **ESTES PLANES**

4120 PRESIDENTIAL VIP

**R/C AIRLINER** 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+.

SPECS:

Wingspan: 55 in. (140 cm); Length: 34 in. (86.4 cm) Freq: 27.145 MHz; Range: 1000 ft. (305 m) Requires 6 - 'AAA' batteries - sold separately.

**4123 AIR FORCE ONE** 

PRESIDENTIAL R/C AIRLINER Fly the President's plane! One of the largest RC air-

planes available and powered by 4 electric ducted fan jet engines! Flight control is made simple by using a unique 'Thrust Vectoring' technique... electronically control the speed of the engines for full function control! Includes a launch system for perfect takeoffs, two flight batteries and a charger that can be used at home or at the field. Ready to fly in minutes! Ages 12+. SPECS:

Wingspan: 42 in. (107 cm); Length: 40 in. (101.6 cm) Freq.: 27.145 MHz; Range: 1000 ft. (305 m) Requires 8 – 'AA' alkaline batteries – sold separately.

4125 FLIGHT MASTER™ ROG R/C PLANE Master taking off and landing from the ground with this twin engine, R/C plane! Twin engines double the power and make steering easier because each flight is simply controlled by the speed of motors! Includes Fly-Rite electronics that prevent over steering so anyone can fly like a pro in no time! The ROG comes complete. Some assembly required. Ages 12+. SPECS:

Wingspan: 31.5 in. (80.0 cm); Length: 25.5 in. (64.8 cm) Freq.: 27.145 MHz ; Range: 750 ft. (229 m) Requires 8 - 'AA' alkaline batteries - sold separately.

4127 XB-39 EAGLEYE\* **DIGITAL CAMERA R/C PLANE** 

\$254.99

Take some of the most fantastic digital pictures ever from an eagle's eye view with this amazing R/C model airplane. Designed for anyone to fly, this giant size, twin engine (ducted fan jet engines) jet can reach heights of 1000 feet and snap up to 26 digital pictures on command along the way. Camera pod snaps off the plane for easy download of your pictures to your computer. Includes a simple to use takeoff system, two rechargeable flight batteries, a charger that operates at home or the flying field, a 4 function controller, software, USB cable and two button cell batteries for camera. Camera's resolution is 72 dpi. Ages 12+. SPECS:

Wingspan: 55 in. (140 cm); Length: 34 in. (86.4 cm) Freq.: 27.145 MHz; Range: 1000 ft. (305 m) Requires 6 – 'AAA' alkaline batteries – sold separately.

**4108 HYPER X™** The ultimate biplane for the beginning R/C pilot! It's ready to fly right out of the box, takes off from the ground, has a wingspan nearly two feet in length and rugged landing gear. The cross connect 2 wing design adds more stability making it easy to take off, climb, dive, turn left and right and then stick the landing. Features include Fly-Rite<sup>M</sup> electronics (to prevent over steering), installed adds outside recharges length of the property of the stable of the property installed radio system, rechargeable NiMH flight battery, R/C transmitter and field charger. Ages 12+.

SPECS: Wingspan: 21 in. (53.3 cm) Length: 18.5 in. (47 cm)

Freq.: 27.145 MHz; Range: 500 ft. (152 m) Requires 8 - 'AA' alkaline batteries for transmitter and 6 -'D' alkaline batteries for charger - sold separately.

This catalog is FREE. If you bought it, call us at 800-525-7561







4160 SKY RANGERS® MICRO R/C PLANE

\$40.99

One of the greatest values in Micro R/C! This Micro R/C is packed full of new technology! A lithium polymer battery provides up to 5 flights on a single charge. An All-In-One controller and charger makes it easy to fly at the field all day. Includes our exclusive Fly-Rite™ steering control that makes learning to fly fast! Ages 12+.

SPEĆS:

Wingspan: 14.0 in. (35.6 cm); Length: 11.5 in. (29.2 cm)

Freq.: 27.095 MHz; Range: 300 ft. (91 m)

Requires 6 - 'AA' alkaline batteries- sold separately.

4161 SKY RANGERS® **R/C PLANE** 

Fun, fast, high-flying action is the name of the game for this R/C flyer! Using the power of its twin motor system, this plane can be controlled to do some 'wicked' maneuvers! Lithium powered for up to 4 flighten as single horse. Includes a name of the power lithium power po flights on a single charge. Includes an All-In-One controller and charger, our exclusive Fly-Rite™ steering control and is factory built with radio and battery installed. Ages 12+.

Wingspan: 21.0 in. (53.3 cm);

**Length:** 10 in. (25.4 cm) **Freq.:** 27.095 MHz; **Range:** 500 ft. (152 m)

Requires 6 - 'AA' alkaline batteries - sold separately.

4022 AERO X™ INTERCEPTOR™ \$46.99

This mini-sized R/C Mobile Launcher drives around the house, room to room, to launch its AeroX™ plane with a simple push of buttons. The plane is electric powered and charges in seconds while on the Interceptor™ launcher. Designed to fly in most any room of the house, it's light and durable enough to bounce off walls and ceilings and keep on flying! You can even fly it outdoors on calm days. R/C Controller

included. Ages 8+.

SPECS: Mobile Launcher: Length: 7 in. (17.8 cm) **Width:** 4.5 in. (11.4 cm) **Freq.:** 27.145 MHz

**Electric Free Flight Plane:** 

Wingspan: 9.25 in. (23.5 cm) **Length:** 7.75 in. (19.7 cm)

Requires 4 - 'AA' alkaline batteries – sold separately. Aero X™ is a TM of Hosung and is used by permission.

This catalog is FREE. If you bought it, call us at 800-525-7561





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™ ROCKET LAB PACKS™

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

**E2X® SERIES** 

 1751 Alpha III\* (See page 17 for rocket description)
 \$103.99

 1764 Generic E2X\* (Pictured below)
 \$93.99

 1793 UP Aerospace™ SpaceLoft™ (Pictured below)
 \$54.99

IGNITE THE IMAGINATION™ OF YOUR STUDENTS!

#### **SKILL LEVEL 1**

 1754 Wizard™ (See page 25 for rocket description)
 \$62.99

 1755 Viking™ (See page 25 for rocket description)
 \$52.99

 1756 Alpha\* (See page 23 for rocket description)
 \$87.99





Dia.: 0.98 in (24.8 mm)
Wt.: 1.3 oz. (36 g)
Recovery: 12 in. (30 cm)
Parachute

Parachute

Fins: 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,

# ESTES EDUCATOR™ ROCKET ENGINE LAB PACKS™

Includes 24 engines and igniter plugs, 30 igniters and a package of recovery wadding - 75 sheets. (Pictured at right) See pages 38-40 for engine descriptions and specifications.

op comeano.
\$44.99
\$56.99
\$57.99
\$64.99
\$66.99
\$55.99



ESTES EDUCATOR™ ROCKET ENGINE LAB PACK™

# **CURRICULA**

2852 Ignite the Imagination™ Curriculum Guide \$11.99

(Pictured at right)

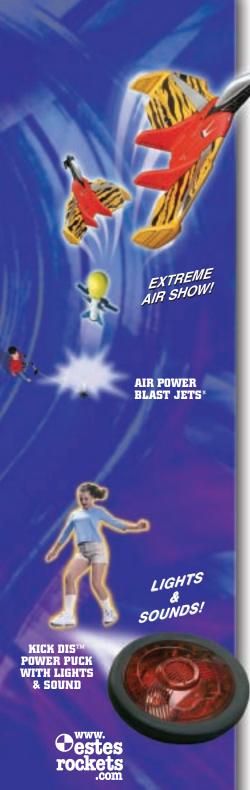
- For grades 5-8.
- Hands-on activities on model rockets and space.
- National Education Standards incorporated.

FREE ADDITIONAL CURRICULA, TECHNICAL PUBLICATIONS
AND SOFTWARE AVAILABLE AT: WWW.ESTESEDUCATOR.COM



IGNITE THE IMAGINATION™ CURRICULUM GUIDE





## **ESTES SPECIALTY PRODUCTS**

**1860 AIR POWER ACTION HERO** 

\$46.99 Slide the Action Hero Rocket onto the launch tube, pressurize the system with a few pumps, push the button and blast off! Set comes com-plete with rocket and air power launch system.

Ages 10+. SPECS: Rocket Length: 10.5 in. (26.7 cm) Max. Altitude: 10 Stories High

Recovery: Bounce

1861 AIR POWER BLAST JETS\* \$51.99

Blast Jets are air rocket-launched airplanes! Two super-flying jets are thrust over 7 stories into the sky on the back of a booster rocket. The jets separate from the rocket and circle overhead. Booster rocket has a foam nose cone for "Bounce-Back" recovery. Includes complete air powered launch system, booster

rocket and two jets. Ages 10+.

SPECS: Blast Jet: Wingspan: 6.5 in. (16.5 cm)

Length: 5.75 in. (14.6 cm) Rocket: Length: 11.25 in. (28.6 cm) Max. Altitude: Over 7 Stories High

Recovery: Bounce

1863 HYDROGEN FUEL ROCKET SET WITH LIGHTS AND SOUND

\$59.99

Generate hydrogen fuel from tap water! Lights synchronize fuel generation from start to finish. The 'Talking Command Center' tells you when the gas generation starts, gives you facts about hydrogen during generation and tells you when it's ready to launch. Launches a 'Spin Recovery' (helicopter) ready to fly rocket nearly 200 feet high! Set comes complete and is ready for launch in minutes. Ages 10+ with adult supervision for those under 12.

SPECS: Launch Platform Length: 20.5 in (52.1 cm) Rocket Length: 11 in. (27.9 cm)

Rocket Length: 11 in. (27.9 cm)
Recovery: Spin
Max. Altitude: 200 ft. (61 m)
Propellant: Hydrogen fuel from water
Power Supply: 6 - 'D' alkaline batteries - sold separately.

1864 X-100 TALON™ AIR POWER ROCKET PLANE \$54.99

AIR PUWER RUCKET PLANE
This amazing air powered rocket plane transforms from a rocket into a high performance glider after liftoff! Place the Talon onto its air power launcher, pump in some air and blast off nearly 5 stories high! When it rockets into space, watch it flip open its wings and glide back down for another launch. Ages 10+.

SPECS: Length: 12 in. (30.5 cm)
Wingspan: 15.5 in. (39.4 cm)
Max. Altitude: 5 Stories High
Recovery: Clider

Recovery: Glider

\$51.99 **1876 HYDROGEN FUEL ROCKET** 

A revolutionary new way to launch rockets! Converts water into hydrogen fuel for unlimited launches. Sends a rocket (included) 250 feet (76 m) into orbit. Includes hydrogen generating launch pad, remote launch controller & one ready to fly rocket. Ages 10+with adult supervision for those under 12.

SPECS: Launch Platform Length: 20.5 in. (52.1 cm)

Rocket Length: 11 in. (27.9 cm)

Rocket Length: 11 in. (27.9 cm)
Recovery: Bounce

Max Altitude: 200 ft. (61 m) **Propellant:** Hydrogen fuel from water **Power Supply:** 6 - 'D' alkaline batteries - sold separately.

8304 KICK DIS™ POWER PUCK

**LIGHTS & SOUNDS** 52.99 This fast moving power puck flashes lights and blasts sounds as it hovers on a cushion of air! Play indoors or out – soccer, hockey, bowling or create all sorts of fun and games. Includes wall charger & rechargeable battery. Ages 7+.

Dia.: 7.5 in. (19.1 cm)

8306 SHOCKWAVE™ PLAY PUCK

Hit this play puck and watch the lights and sounds blast as it slides across the floor! Official playbook included. Ages 6+.

Dia: 4 in. (10.2 cm).

Includes 3 - 'AAA' batteries.

