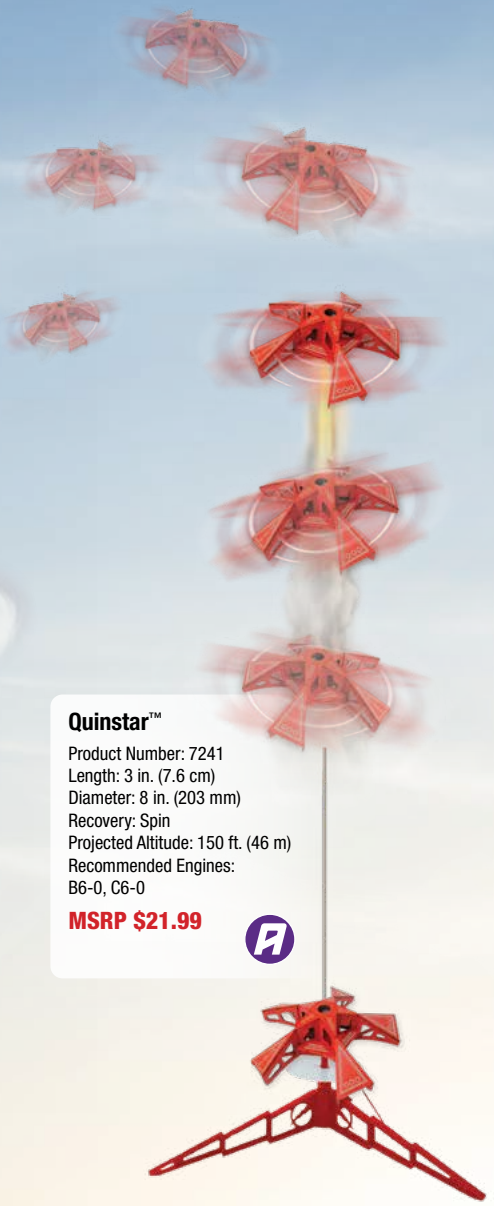
*During the Tazz recovery, the rocket spins back to earth while the engine mount separates and gently descends with an attached streamer!*


### Tazz™

Product Number: 7282
Length: 16.6 in. (42.2 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Streamer, Spin
Projected Altitude: 700 ft. (213 m)
Recommended Engines:
A8-3, B6-2, B6-4, C5-3, C6-3

**MSRP $24.99**

*The Quinstar spins one direction during takeoff and the opposite on descent, allowing it to float back to earth without a parachute!*



### Quinstar™

Product Number: 7241
Length: 3 in. (7.6 cm)
Diameter: 8 in. (203 mm)
Recovery: Spin
Projected Altitude: 150 ft. (46 m)
Recommended Engines:
B6-0, C6-0

**MSRP $21.99**

### Gryphon™

Our easiest to build boost glider kit ever! Designed for the true beginner, the Gryphon has all precision cut parts that assemble on a flat surface. No airfoil or dihedral is needed to make this clever glider fly!

Product Number: 7280
Length: 18 in. (45.7 cm)
Diameter: 0.54 in. (14 mm)
Recovery: Streamer, Glide
Projected Altitude: 700 ft. (213 m)
Recommended Engines:
1/2 A3-2T, A3-4T, A10-3T

**MSRP $20.99**


*The Gryphon is not only easy to build and fun to launch but its Canard Glider will amaze you with its flight performance!*

# Designer Signature Series

The Designer Signature Series is a series of kits designed by some of the most famous pioneers of model rocketry. Some will be re-introductions of lesser-known classics and others will be never-before-seen designs that never made it out of the R&D room. Every serious model rocket collector will want the complete series for their own museum!

Bill Simon was a creative writer and lead designer for Estes in the 60's and early 70's, and he presided over a golden age of rocketry. His designs, such as the *Drifter*, *Farside*, and *Cobra,* have gone on to become the cornerstones of treasured collections, and his work has taught a generation of rocketeers.

The Belt Object Survey Ship (B.O.S.S.) was designed nearly 40 years ago, but the prototype never made its way to release. Bill Simon created this in partnership with Estes, but after his departure from the company. It was designed at a time where people were hungry for spaceflight innovations, and nuclear propulsion and solar power felt like the best way forward.

This B.O.S.S. rocket uses one tail fin, two engine pod assemblies, and a large circular plate to stabilize the rocket - a rare asymmetrical structure and a challenging build. We've matched the artistry of this design with high-quality components to bring you the latest in the Estes Designer Series.


**B.O.S.S.™**
(Belt Observer Survey Ship)
Product Number: 7316
Length: 27.8 in. (70.6 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 600 ft. (183 m)
Recommended Engines:
B4-4, B6-4, C6-5
**MSRP $34.99**



In 1960 Vern Estes, founder of Estes Industries, designed the Astron Scout™, which was the first Estes model rocket packaged for sale as a complete kit.

**Orange Bullet™**
Product Number: 7295
Length: 5.9 in. (15 cm)
Diameter: 0.74 in. (19 mm)
Recovery: Featherweight
Projected Altitude: 500 ft. (152 m)
Recommended Engines:
1/2 A6-2, A8-3
**MSRP $12.99**

The Orange Bullet was the prototype for the famous Astron Scout. This rocket used metal weights glued to the end of the fin tips to shift the center of gravity back after the engine popped out at apogee resulting in the rocket tumbling gently instead of streamlining in nose first. It worked, but after many experimental flights, Vern realized he could achieve the same thing without ejecting the engine. He could use the weight of the rocket engine itself to shift the center of gravity backwards. During a span of more than 20 years, Estes sold tens of thousands of Astron Scout kits, inspiring countless young people to pursue technical careers.


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


**Antar™**
Product Number: 7310
Length: 23.2 in. (58.9 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 450 ft. (137 m)
Recommended Engines:
B6-2, B6-4, C6-5
**MSRP $32.99**

Harry Stine was a visionary who believed that mankind would soon travel to and live in space. He wrote several fiction books in the early 1950's including best sellers *Starship Through Space* and *Contraband Rocket*. Many of the characters in his books were based on real people he met working at White Sands. His stories also needed spaceships that didn't exist yet so he created them. Athena, Fafnir, Vittoria, Absyritis were all designed with incredible detail by a fictional company Hueco Spacecraft Inc.

# IMAGINE NEW WORLDS

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

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

Super Mars Snooper is a nuclear- powered reconnaissance craft designed to explore Mars' outermost moon, Deimos. This "upscaled" version of the original "K-20" released in 1965 stands 29.3 inches tall and flies on C11 and D12 engines. Thoughtfully redesigned to include all plastic cones and transitions, this unique spacecraft is still a challenging build. It is a faithful replica of the model that was featured on Estes first full color catalog in 1966. Every collector should have this "Super Snooper"!

### Super Mars Snooper™

Product Number: 7309
Length: 29 in. (73.7 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 800 ft. (244 m)
Recommended Engines:
C11-3, D12-5

**MSRP $37.99**

### LEO Space Train™

Product Number: 7285
Length: 17 in. (43.2 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 300 ft. (91 m)
Recommended Engines:
C5-3, C6-3

**MSRP $26.99**

### Protostar™

Product Number: 7260
Length: 24 in. (61 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 1350 ft. (411 m)
Recommended Engines:
C11-3, D12-5, E12-6
**Requires (Sold Separately):**
3/16 in. Maxi™ Launch Rod
See Page: 83

**MSRP $30.99**

### Interceptor™

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

Product Number: 1250
Length: 26 in. (66 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 525 ft. (160 m)
Recommended Engines:
B4-2, B6-2, B6-4, C6-5

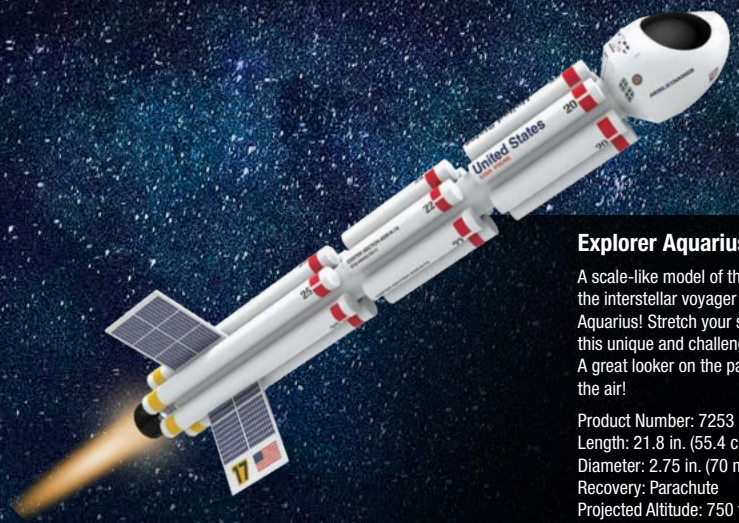
**MSRP $32.99**

***Snap together construction, ready to fly in minutes!***


### Starship Octavius™

Product Number: 7284
Length: 20 in. (50.8 cm)
Diameter: 0.98 in. (25 mm)
Recovery: Parachute
Projected Altitude: 1100 ft. (335 m)
Recommended Engines:
A8-3, B4-4, B6-4, C6-5, C6-7

**MSRP $18.99**




### Explorer Aquarius™

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

Product Number: 7253
Length: 21.8 in. (55.4 cm)
Diameter: 2.75 in. (70 mm)
Recovery: Parachute
Projected Altitude: 750 ft. (229 m)
Recommended Engines:
D12-3, D12-5, E12-4, E12-6

**Requires (Sold Separately):**
3/16 in. Maxi™ Launch Rod
See Page: 83

**MSRP $42.99**

## *Return of a Classic - Coming Late Summer 2022!*

The Orbital Transport is an Estes classic, flown and treasured by rocketeers since the early days of rocketry. It was originally designed by Wayne Kellner and introduced to the nation in the late 60's, proving to be one of Estes' most popular models. After it was taken out of production, rocketeers quickly bought out the remaining kits, and they've been begging for its return ever since. Scaled up from the original, it's bigger and better than ever, this is the ***Super*** Orbital Transport!


### Super Orbital Transport™

Product Number: 7314
Length: 31.3 in. (80 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 800 ft. (244 m)
Recommended Engines:
C11-3, D12-5

**Requires (Sold Separately):**
3/16 in. Maxi™ Launch Rod
See Page: 83

**MSRP $49.99**


### Expedition™

Product Number: 7249
Length: 25.6 in. (65 cm)
Diameter: 2.22 in. (56 mm)
Recovery: Parachute
Projected Altitude: 1100 ft. (335 m)
Recommended Engines:
C11-3, D12-5, E12-4, E12-6

**Requires (Sold Separately):**
3/16 in. Maxi™ Launch Rod
See Page: 83

**MSRP $27.99**

DESTINATION MARS™

# MARS ONE EXPEDITION: UTOPIA PLANITIA

DR. GRACE HENRY, MISSION COMMANDER

**19OCT2035 11:12 UT**

CMDR HENRY: Altitude 3,000 meters. Some buffeting... increase throttle... 2000. Landing radar engaged... Surface details visible... hello Utopia! 1000 meters. MAV throttle-up to 60 percent... landing site targeted. Descending at 20 meters per and slowing rapidly... 500 meters. Correcting drift... 100 meters... 50... lots of dust... 20... 10... contact signal! Engine cut-off.

**19OCT2035 11:14 UT**

CMDR HENRY: Utopia Outpost reporting. Please be advised: as of this moment, there IS life on Mars!

## Commander's Surface Journal

### Mission Day 01

"Mars is magnificent! After the swirling red dust kicked up by the MAV settled, we finally got a look at Utopia Planitia - the Plains of Utopia - the vast impact basin in the Mars northern hemisphere that will be our base of operations for the next 33 days. The dusty dunes stretch to the horizon and are every shade of red and brown imaginable, and the sky ranges through the day from vivid pink to baby blue. Truly magnificent!"

### Mission Day 03

"I'm ready to direct the crew to unload the MAV and set up the Utopia Outpost habitats. We have a lot of ground to cover - can't wait to test the LAMPMU backpack. LAMPMU… that's quite the mouthful! Going to have to come up with a better name!"

### Mission Day 06

"We fired up the backpack today. It was flawless! I've run the simulator many times, but nothing can prepare you for the actual article. So exhilarating! With the backpack you don't so much fly, you leap! When I told the crew this, they started calling it 'The Leaper.' We'll see if the nickname sticks…"

### Mission Day 15

"The MAV is our only ticket off Mars and today we almost lost it. Mission Pilot Finn Watts was conducting his daily inspection and noticed a growing fissure in the soil under landing strut #2. Acting quickly, Watts activated the MAV thrusters and repositioned the lander to a rocky plain 100 meters east of Utopia Outpost. If Watts had waited even one more minute, the fissure would have toppled the lander. We owe him our lives."

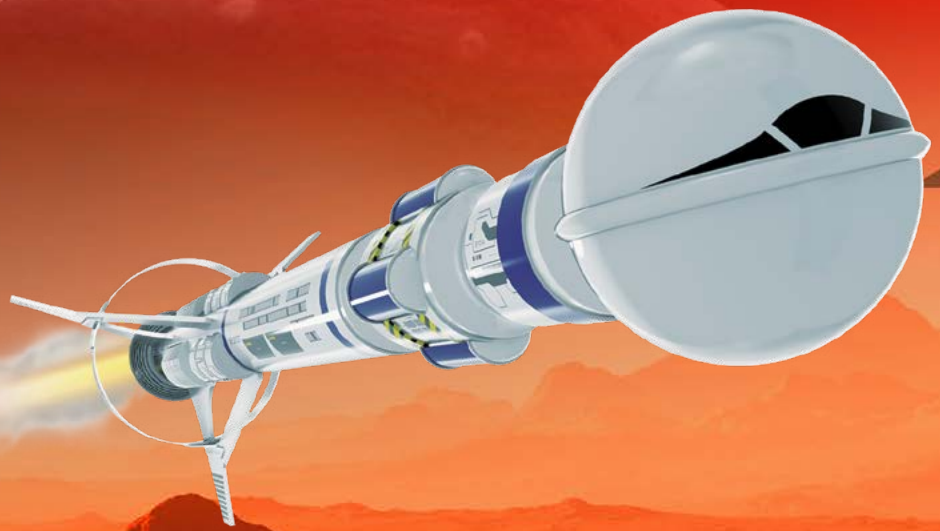
### Mission Day 22

"A discovery for the ages! Excavating an early-Mars streambed formation, Mission Exopaleontologist Max Kolb uncovered evidence of fossilized flora - an ancient Martian grove, right under our feet! The answer to the question of life on Mars has been answered. Mars was once a living planet. Will it be again?"

### Mission Day 33

"Today ends our mission and humanity's first adventure on another world. We leave as we arrived, peaceful visitors from the blue planet, seeking only to learn from the red planet, and to maybe, someday, make it our home."

# DESTINATION MARS



## DESTINATION MARS
### MARS LONGSHIP™

Mission: Interplanetary transport
Complement: 32 crew / up to 120 colonists
Propulsion: Phased fusion induction
First Flight: 2052

Operational Notes: Supports the Mars exploration and colonization effort. The Mars Longship completes the Earth-Mars circuit every 12 to 18 months, depending on orbital positioning. This massive transport remains in Mars orbit while colonists and cargo are ferried to the surface aboard next generation MAV Landers. Each transit of the Mars Longship replenishes the Mars base and acts as a vital link for the colonists to old Earth.

This spectacular Estes Mars Longship includes laser cut wood fins and struts, an extended nosecone/crew compartment, molded plastic and cardstock components, and two big sheets of detailed water-slide decals to add the perfect touch of realism! Be prepared for long, slow liftoffs on a recommended Estes D or E engine. Impressive on the pad and in flight!

Product Number: 7296
Length: 27.2 in. (69.1 cm)
Diameter: 1.33 in. (34 mm)
Recovery: Parachute
Projected Altitude: 500 ft. (152 m)
Recommended Engines:
D12-3, E12-4

**Requires (Sold Separately):**
3/16 in. Maxi™ Launch Rod
See Page: 83

**MSRP $37.99** A

## DESTINATION MARS
### LEAPER™

Mission: Personal transport
Complement: 1 pilot
Propulsion: High efficiency chemical reaction rockets
First Flight: 2035

Operational Notes: Official designation – Low-Altitude Mars Personal Maneuvering Unit (LAMPMU). Carried to the surface on the Mars One Expedition, the LAMPMU, often referred to as "The Leaper," enabled crew to rapidly travel between habitats. The first Mars surface test flights were conducted by Mission Commander Grace Henry. Modified versions of The Leaper (Mark II – Mark V) were utilized by each successive Mars Expedition.

The Leaper is a lightweight, highly detailed, pre-finished model rocket that requires almost no assembly - you'll be ready to "leap" in minutes! Count down and watch the Leaper lift-off from the launch pad and fly up to 75 ft. on a recommended Estes mini engine before gently tumbling back, ready to leap again!

Product Number: 7297
Height: 7.7 in. (19.6 cm)
Diameter: 0.54 in. (14mm)
Diameter w/ legs: 23.4 in. (59.4 cm)
Recovery: Featherweight
Projected Altitude: 75 ft. (23 m)
Recommended Engines:
A10-0T

**MSRP $24.99** B

## DESTINATION MARS
### MAV™

Mission: Surface-orbit transport
Complement: 2 crew / 6 science staff
Propulsion: Focused reaction jets
First Flight: 2035

Operational Notes: The robust Mars Ascent Vehicle (MAV) was essential to the success of the Mars One Expedition. Landing and returning the crew safely paved the way for successive missions, with longer surface stays and more challenging goals. The next generation MAVs, with increased capacity for crew and cargo, would help build the Mars base, and later, the Mars colony.

A simple to assemble model, and a great flyer, too! Featuring molded plastic fins struts, a detailed pre-wrapped body tube, and a realistic "capsule" nosecone, the Estes MAV Lander can be built and flown in the same day. A durable, dependable, and fun rocket that flies great on a recommended Estes C engine.

Product Number: 7283
Length: 12.7 in. (32.3 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 250 ft. (76 m)
Recommended Engines:
C5-3, C6-3

**MSRP $21.99** B


*The first Vesta Intrusion of 2055 was a watershed moment for humanity. An alien trespasser was detected lurking among the asteroids and humankind realized that in the face of a true threat, it was helpless. Space Corps assessed its vulnerabilities and prepared for a possible second intrusion.*

*Twenty-one years later, those preparations are put to the test...*

31JUL2076 0111 UT. SECURE CHANNEL AUTHORIZED… BEGIN TRANSMISSION… EXTRA-SOLAR INTRUDER DETECTED NEAR VESTA. INTENTIONS UNKNOWN. ALL STATIONS AND ALL VESSELS GO IMMEDIATELY TO MAXIMUM THREAT LEVEL. HOSTILITIES MAY BE IMMINENT … END TRANSMISSION

**Aboard Space Corps Centurion Interceptor 1124b – "Bluebird" – on patrol near Asteroid Vesta**

Centurion pilot Lt. Dominic "Dominator" Andrews listened to the threat alert and shared a glance with his navigator and weapons officer, Lt. Billy "Booster" Barnes. They didn't need a warning about a mysterious intruder… they were staring at the thing! Sleek, menacing, and utterly alien, the massive spaceship was sliding effortlessly past their Centurion interceptor, away from Vesta and toward the inner planets, and Earth.

There was no mistaking what they were seeing – the Vesta Intruder had returned! But what were its intentions? Barnes whispered to his pilot "what do you think, Dom? Friend or foe?" The aft end of the strange craft was spewing particles and glowing a ghostly green. The forward section bulged with strange protrusions. There were no obvious weapons. Just immense, intimidating power.

Friend or foe? thought Andrews, weighing the options in his head. "Neither" he finally answered as the intruder receded ahead. He made his decision. "We've got to follow that thing, Booster. Get on the line and alert Corps Control that we're on its tail. Tell them to track it by our position." Andrews pivoted the Centurion to match the heading of the mystery vessel and slowly increased the throttle. Pilot and navigator braced for the onset of acceleration as their small craft raced to catch up to the intruder.

Andrews knew it was no secret that Space Corps had been planning for this day since the first Vesta intrusion in '55. He knew that a fleet of Centurion interceptors, Corvette attack vessels, and every other defensive asset of the Corps were even now deploying to face the Intruder. He knew these things, but he wondered: was it enough?

He thought for a moment of his Space Corps Academy days. "Know your job, do your part, and the rest will follow," Admiral Beard used to tell the assembled students. The Old Man had great faith in the Corps and the cadets he was training. Lt. Dominic Andrews hoped he was right…

NEW!

SPACE CORPS

## VESTA INTRUDER™

Mission: Unknown
Complement: Unknown
Propulsion: Unknown
First Flight: Unknown

Operational Notes: Very little is known about the extra-Solar spacecraft now known as the Vesta Intruder. Its origins are a mystery, as is its composition and its purpose. What is known is this: on June 24, 2055, a Corvette convey detected an anomalous energy source near Asteroid Vesta. Investigating, the patrol encountered a large alien spacecraft engaged in observations of Earth. As quickly as it was spotted, the mysterious intruder disappeared in a flash of green light. Stunned by undeniable evidence of an alien intelligence, an uncertain humanity prepared for its return. Twenty-one years later, it did return. And this time, humanity was ready…

At more than two feet in length, the Vesta Intruder is large and intimidating. Claw-like fins, bulging mid-body strakes, and an immense molded nosecone come together to make one truly alien-looking rocket! This Advanced-Level kit will test your modeling skills, but the results are worth it, especially when you watch it lift-off under the power of a recommended Estes C or D engine.

Product Number: 7312
Length: 25.2 in. (64 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 650 ft. (198 m)
Recommended Engines:
C11-3, D12-5
Requires (Sold Separately):
3/16 in. Maxi™ Launch Rod
See Page: 83

**MSRP $37.99** A

SPACE CORPS

## DARC-1™

Mission: Exploration, Survey
Complement: 2 crew / 2 science staff
Propulsion: Ion reaction (2nd gen)
First Flight: 2052

Operational Notes: Before the Deep Atmosphere Research Craft (DARC-1), only robotic probes could safely pierce the crushing atmospheres of Venus, Jupiter, Saturn, and other impenetrable worlds. Lifting body characteristics for stability in dense atmospheres, and a breakaway aft booster to escape deep gravity wells are crucial features of this research rocket. When the original DARC-1 was lost during a rescue mission over Titan, Space Corps authorized six new spacecraft.

Designed around a detailed, conical plastic shroud, this kit is unlike any other model rocket! Show up at your launch site with this one, and watch every head turn as it roars off the pad on a recommended Estes B or C engine. Challenge yourself with the Expert-Level DARC-1 kit.

Product Number: 7307
Length: 9.3 in. (23.6 cm)
Diameter: 0.74 in. (19 mm)
Wingspan: 6.9 in. (17.5 cm)
Recovery: Parachute
Projected Altitude: 400 ft. (122 m)
Recommended Engines:
B6-2, C5-3, C6-3

**MSRP $32.99** E

*No Assembly Required!*


SPACE CORPS

## CENTURION™

Mission: Interceptor, fighter
Complement: 1 pilot / 1 navigator
Propulsion: Pulsed plasma thruster
First Flight: 2061

Operational Notes: Developed under a crash program in response to the first Vesta Intrusion of 2055. The Centurion Space Interceptor is armed with a phased energy cannon array, and mounting points for missiles and kinetic weapons. This compact fighter is highly maneuverable and capable of 12G acceleration and Mach 6.3 in atmosphere. The Centurion fleet is tasked with protecting Earth and the Solar-colonies from any threat.

The Estes Space Corps Centurion Fighter is molded from highly durable EPP foam. When bent or crushed the Centurion pops back into shape and is ready to launch again. This model rocket comes pre-finished and almost-ready-to-fly – simply attach the parachute and you're all set to launch!

Product Number: 7291
Length: 11.1 in. (28.2 cm)
Diameter: 0.74 in. (19 mm)
Wingspan: 7.5 in. (19.1 cm)
Recovery: Parachute
Projected Altitude: 700 ft. (213 m)
Recommended Engines:
A8-3, B4-4, B6-4, C6-5

**MSRP $32.99** B

SPACE CORPS

SPACE CORPS
## CORVETTE CLASS™

Mission: Patrol, transport, search and rescue, intercept
Complement: 6 – 12, depending on configuration
Propulsion: Plasma propulsion engine
First Flight: 2038

Operational Notes: The primary "ship of the line" for Space Corps. The Corvette Class rocket has been pressed into many roles within the fleet, including patrol, transport, interdiction, and search and rescue. With upgrades, Space Corps anticipates maintaining the Corvette fleet into the 2070s and beyond.

The Corvette Class takes the classic model rocket design and cranks it up to "very cool!" This Intermediate-Level kit is a straightforward build that's loaded with great details, and it's no slouch on the pad, either. Look out for amazing flights using the recommended Estes B and C engines.

Product Number: 7281
Height: 25 in. (63.5 cm)
Diameter: 1.33 in. (19 mm)
Recovery: Parachute
Projected Altitude: 650 ft. (198 m)
Recommended Engines:
B4-4, B6-4, C5-3, C6-3, C6-5

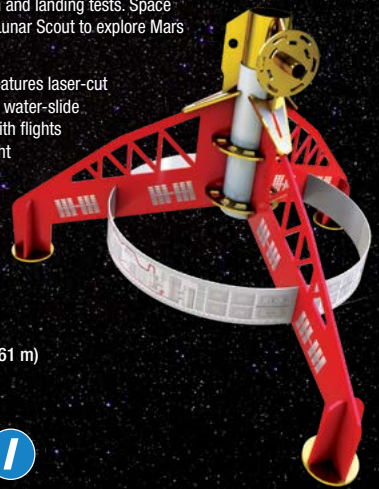
**MSRP $26.99**

SPACE CORPS
## LUNAR SCOUT™

Mission: Exploration, survey
Complement: Robotic AI
Propulsion: Ion reaction (1st gen)
First Flight: 2026

Operational Notes: This adaptable probe led the way for the return to the moon by mapping large sections of the lunar surface and performing remote approach and landing tests. Space Corp later reconfigured the Lunar Scout to explore Mars and its moons.

This Intermediate-level kit features laser-cut cardstock parts and detailed water-slide decals for added realism. With flights up to 200 feet and lightweight recovery, the Lunar Scout is a great small field launcher.



Product Number: 7290
Height: 4 in. (10.2 cm)
Diameter: 0.74 in. (19 mm)
Recovery: Featherweight
Projected Altitude: 200 ft. (61 m)
Recommended Engines:
1/2 A3-2T, A3-4T,
A10-0T, A10-3T

**MSRP $11.99**



# BLUE ORIGIN
## NEW SHEPARD

### ESTES, BLUE ORIGIN, AND CLUB FOR THE FUTURE

We are providing a piece of history that inspires kids to dream of a future filled with the wonders of space exploration. That's why a portion of every dollar from the Estes New Shepard will go to support Club for the Future. We are proud to partner with Blue Origin as they foster the growth of STEM education.

### THE NEW SHEPARD

In 1961, Alan Shepard made history as the first American in space. A decade later, he walked on the moon and pushed the boundaries of space exploration so that we can reach for the planets beyond. From this legacy, Blue Origin furthers our dreams of reaching new frontiers with the New Shepard rocket.

COMING SPRING 2022!

### Builder Kit

- Launches Up to 700 ft.
- Stand Off Scale
- Fun to Build!


Product Number: 7315
Length: 11.8 in. (30 cm)
Diameter: 1.64 in. (42 mm)
Recovery: Parachute
Projected Altitude: 700 ft. (213 m)
Recommended Engines:
B4-4, B6-4, C6-5

**MSRP $35.99**

AVAILABLE NOW!

### Ready to Fly

- 1/66th Scale Model
- Payload Capable
- Custom Display Stand


Product Number: 2198
Length: 10.3 in. (26.3 cm)
Diameter: 1.78 in. (45 mm)
Recovery: Parachute
Projected Altitude: 400 ft. (122 m)
Recommended Engines:
C5-3, C6-3

**MSRP $69.99**

# SCALE MODEL ROCKETS





**Estes is a scale modeler's dream that brings together both the hobby of model rocketry and history. For more than 62 years, Estes has produced the finest scale replicas of rockets and missiles.**

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