STAR WARS MILLENNIUM FALCON

BUILD THE MODEL – EXPLORE THE GALAXY



THE HANX-WARGEL MAIN COMPUTER

F219FSC022

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STAR WARS MILLENNIUM FALCON

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IMPERIAL PASSENGER TRANSPORT

LAMBDA-CLASS SHUTTLE

LAMBDA-CLASS SHUTTLE TECHNICAL SPECIFICATIONS

DESIGN	Sienar Fleet Systems
TYPE	Shuttle
LENGTH	20 meters (65 ft 7 in)
SPEED	50 MGLT
CAPACITY	1-6 crew, plus over 20 passengers, or 8 in staterooms
WEAPONS	2 x Taim & Bak KX5 dual laser cannons forward mounted, 2 x Taim & Bak GA-60s twin rotating blaster cannons, one ArMek R-Z0 retractable double blaster cannon mounted on the rear
SHIELDING	Deflector shields

With its wings in their distinctive triangulated configuration for maximum in-atmosphere efficiency, the *Lambda*-class shuttle is an efficient vehicle for ship-to-surface transfers.

Sienar Fleet Systems' *Lambda*-class shuttle was widely used in the Imperial fleet due to its impressive reliability record. The most common version, the T-4a, can be configured as a diplomatic transport, cargo carrier, courier vessel, and troop deployment ship.

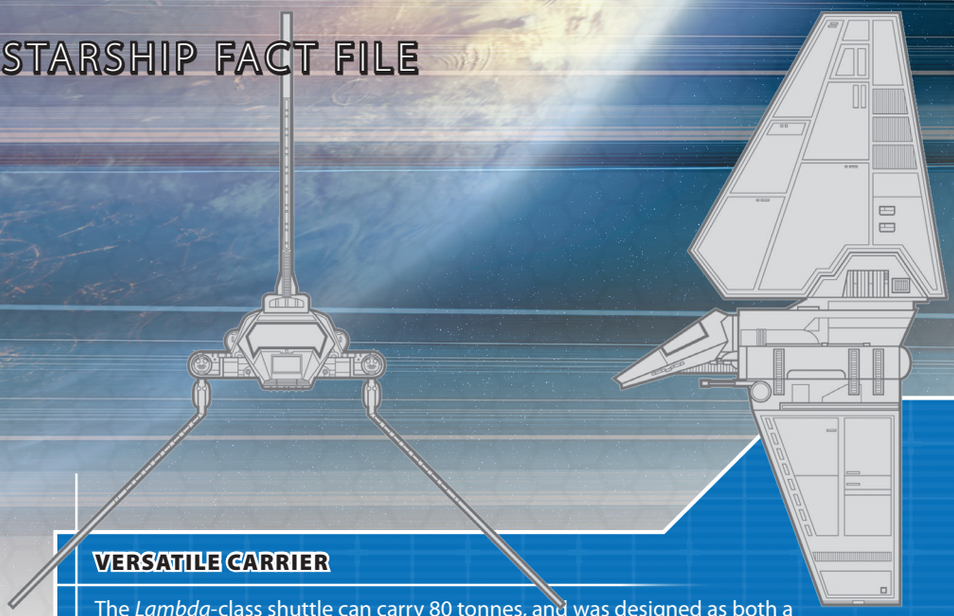
The *Lambda*-class shuttle has two powerful SFS-204 sublight ion engines and a distinctive tri-wing design with a fixed dorsal fin in the center, and two folding wings on either side. As the craft touches down for landing, the two folding wings, which are heavily shielded, fold upwards to protect the vessel's occupants. The wings are lowered as the ship rises from take-off to give the shuttle a more aerodynamic shape – and consequently more speed.

The Empire used the *Lambda*-class shuttle extensively to transfer personnel and cargo between its capital ships, as well as for planetary landings and ship-to-ship transfers between smaller Imperial vessels. Many higher-ranking Imperial officials and bureaucrats favored the shuttle for personal transport due to its heavily reinforced hull, shielding capability, and weaponry – all of which enable these ships to travel safely, sometimes even without any military escort. The Emperor himself used a highly modified version of the T-4a *Lambda*-class shuttle which allowed him to travel with his aides by his side.



As the shuttle comes in to land, its two lower wings swing up into a folded position, allowing the hull to set down on its landing gear. An angled ramp allows the passengers to board or disembark.

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VERSATILE CARRIER

The *Lambda*-class shuttle can carry 80 tonnes, and was designed as both a cargo and troop transport. The cockpit is at the front of the craft, and the boarding/loading ramp is behind and under it. It can hold a maximum of over 20 passengers, although high-ranking individuals are transported in luxurious staterooms, holding a maximum of eight. It normally requires a crew of six (a pilot, co-pilot, navigator, communications officer, gunner, and engineer), but when the need arises, such as in an emergency, a shuttle can be piloted by a single officer.

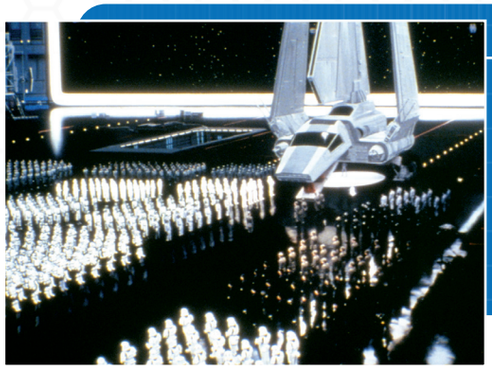
DEFENSIVE MEASURES

The *Lambda*-class shuttle has an impressive defensive system consisting of powerful dual Taim & Bak KX5 laser cannons at the front of the cockpit, plus Taim & Bak GA-60s twin rotating blaster cannons mounted on each of the two folding wings, and one ArMek R-Z0 retractable double blaster cannon installed at the rear. In addition to this weaponry, the shuttle also boasts some of the most formidable deflector shields available, as well as a heavily reinforced hull, well-proven in protecting its occupants from attack.

In the event that the *Lambda*-class shuttle suffers damage to its wings from laser fire, or any other emergency situation, the cockpit can be jettisoned from the main body of the shuttle. On its own, the cockpit is able to travel short distances at sublight speed using rocket thrusters – albeit with a vastly reduced passenger count of no more than six people. In personnel-carrying configuration, the *Lambda*-class shuttle can carry up to 20 passengers as well as its crew, but in the event of having to separate the cockpit, the space allocation is determined by the most senior personnel on board.

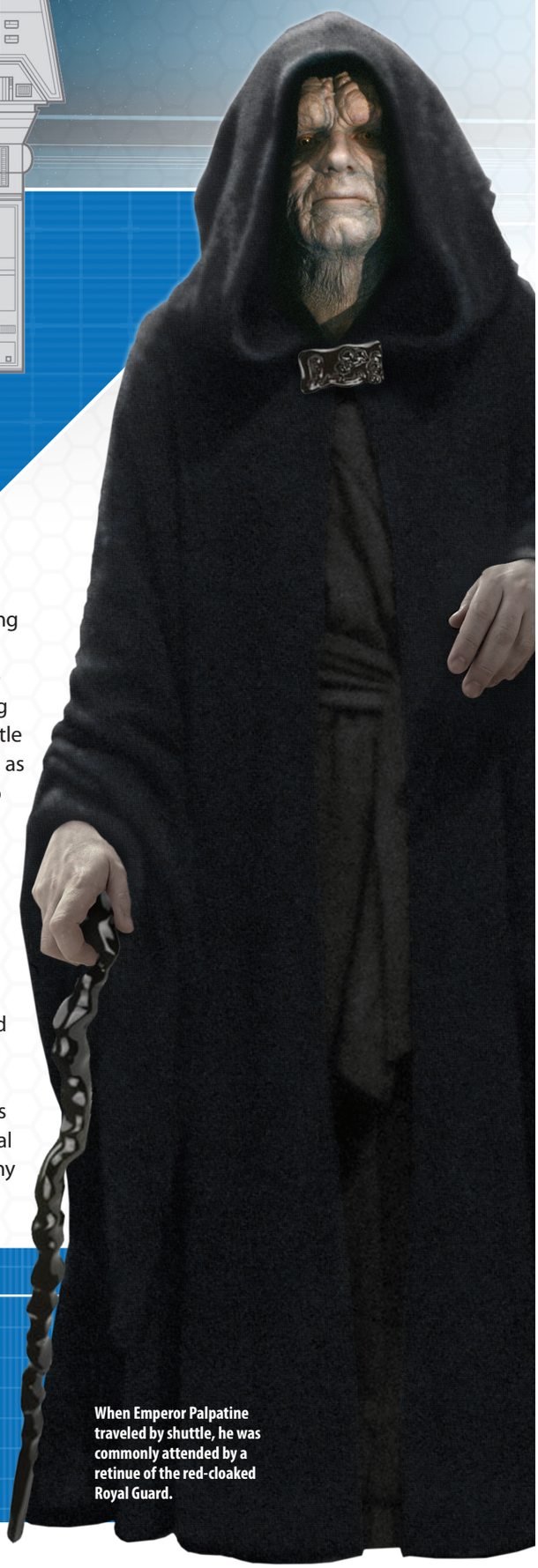
ALTERNATIVE VERSIONS

The standard T-4a version of the *Lambda*-class shuttle was designed and built by Sienar Fleet Systems, and is one of their best-selling lines. This often results in long waiting lists for those looking to purchase. Not only is the shuttle extensively used for official duties, but it is also popular with many of the galaxy's wealthiest individuals.



EMPEROR PALPATINE

The *Lambda*-class was used by key Imperial officials, including Darth Vader and even Emperor Palpatine. The Sith Lords commonly used shuttles on official visits that required them to make a personal appearance as a means of motivating their troops.



When Emperor Palpatine traveled by shuttle, he was commonly attended by a retinue of the red-cloaked Royal Guard.

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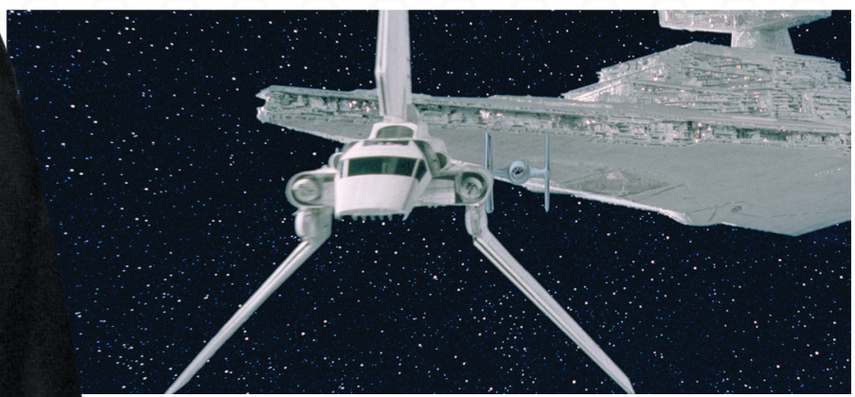
THE BATTLE OF ENDOR

LANDING ON THE FOREST MOON

Critical to a successful rebel assault on the second Death Star was the need for a ground attack on the forest moon of Endor. To get their strike team past the Imperial forces guarding the Death Star and its shield on the surface, the Rebel Alliance captured the Imperial shuttle *Tydirium*, and went to great lengths to disguise it as a cargo shuttle. The assault was carefully timed, and with a strike team put together and trained by Han Solo, *Tydirium* was set on a course for Endor posing an as Imperial cargo vessel. As they came out of hyperspace, the crew of the *Lambda*-class shuttle were able to fool Admiral Piett and his staff with the use of an old Imperial clearance code. Although Darth Vader's suspicions were aroused, Han and his strike team were given free passage to Endor's moon and Solo was easily able to navigate his way to the ground.

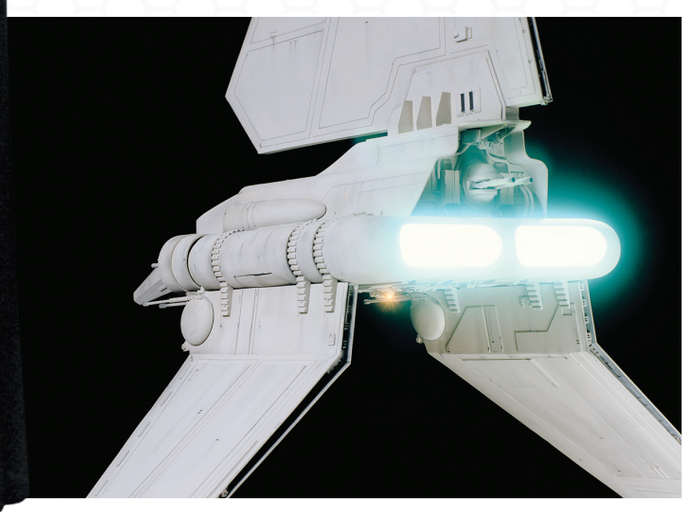


While the rebels on board the shuttle *Tydirium* waited for clearance, Han Solo told Chewbacca to fly as if he wasn't concerned.



Shuttles are commonly used for ship-to-ship transfers, as well as for landing on planetary surfaces. Although shuttles carry defensive armament, senior personnel are often given a fighter escort.

In order to meet demand for the shuttle, the technological genius behind its design – Raith Sienar – decided to subcontract a variant of the shuttle to Cygnus Spaceworks. This design was a heavily armed military version of the shuttle, but Cygnus Spaceworks was not content with producing just this, and tried to compete directly with Sienar Fleet Systems by producing a non-military version of the T-4a that appears to be almost identical apart from some minor, subtle differences.

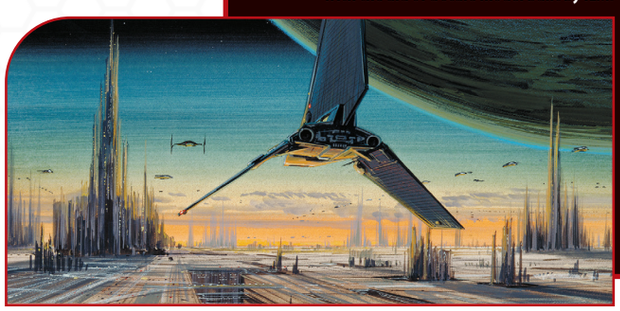


With a pair of ion engines, the shuttle can hit a peak acceleration of 1,400G and a maximum atmospheric speed of 850km/h. The diminutive craft also has a Class 1.0 hyperdrive and a top performance of 50 MGLT.

BEHIND THE SCENES

RECYCLING

Even though the first two *Star Wars* films were a huge success, production on *Return of the Jedi* was never profligate. The shuttle set was recycled for use by Darth Vader, the Emperor and the rebels, appearing as a different ship each time. When drawings based on concept art by Joe Johnston didn't look as envisaged, ILM's Bill George built a model to guide the set-builders constructing the set on Stage 4 at Elstree Studios. It was then just moved around as needed. Blueprints by draftsman Reg Bream dated 26 October 1981 are beautifully detailed, although Bream's notes indicate that the height of the wings had yet to be determined. It was to be adjusted in relation to matte paintings that would convey the illusion of an immense hangar to the audience. Sets created for the movie include the Death Star docking bay and the Rebel hangar – and although photos exist of the shuttle in the Rebel hangar, where it was dressed up to look dirty and banged up, whenever the ship is on screen, it always looks pristine.

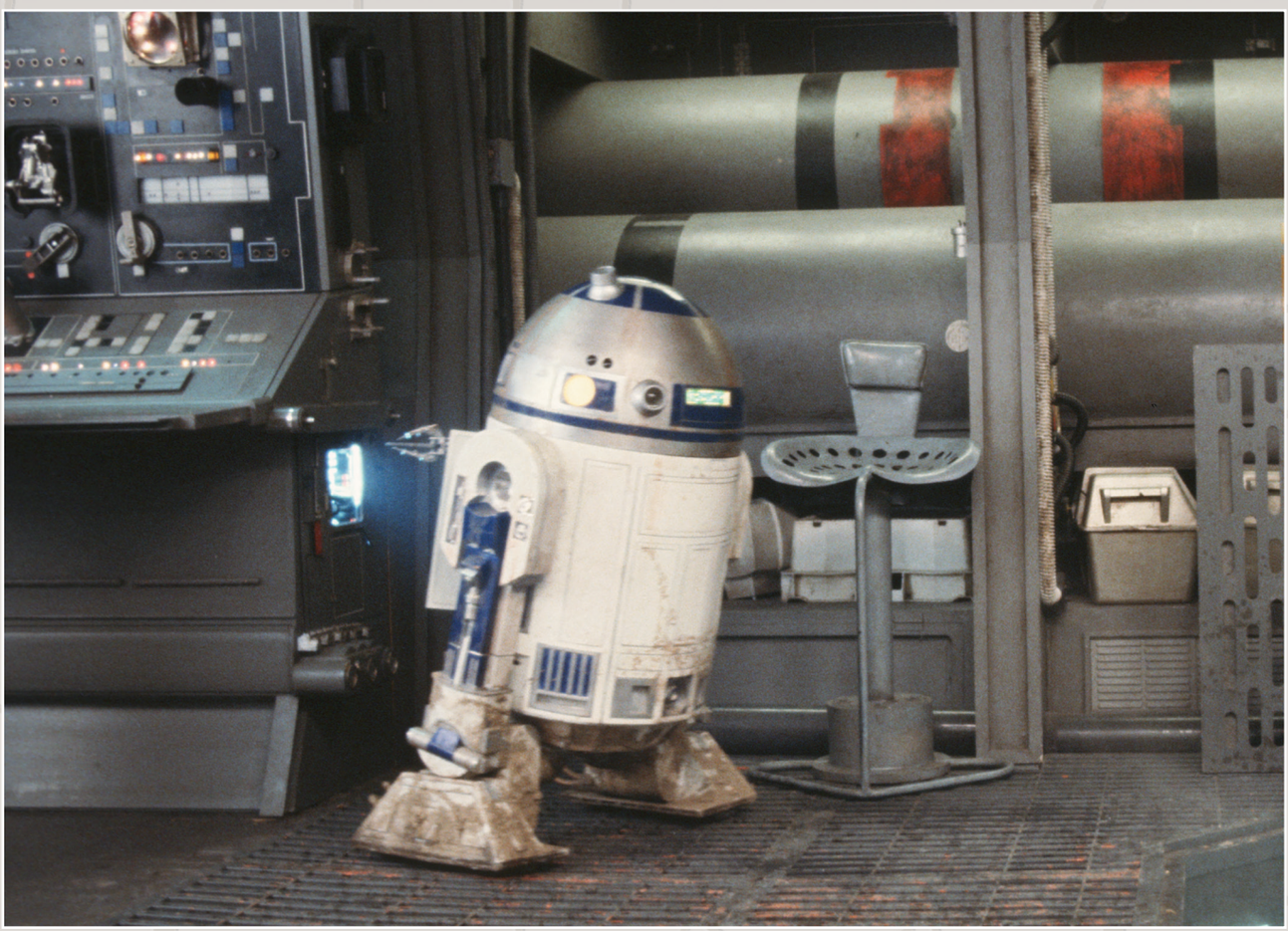


The configuration of the shuttle was defined by concept art, although the details were developed with the aid of a scale model built by ILM.

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THE HANX-WARGEL MAIN COMPUTER

At the heart of every starship is its main computer. Its job is to interface with all of the ship's vital systems, and feed real-time data to her captain and key crew members.



Few mechanics would be capable of understanding the intricacies of the *Falcon's* jury-rigged main computer, let alone be able to fix it – as R2-D2 had to do during the desperate escape from Bespin.

A starship without a functioning main computer is just an uncontrollable, unspaceworthy hunk of metal. Take out your opponent's ship's computer in a space battle, and you take him and his crew out of the fight permanently – for without a fully operational electronic brain on the job, there's no way to manage all of the vital systems that are essential for manned spaceflight.

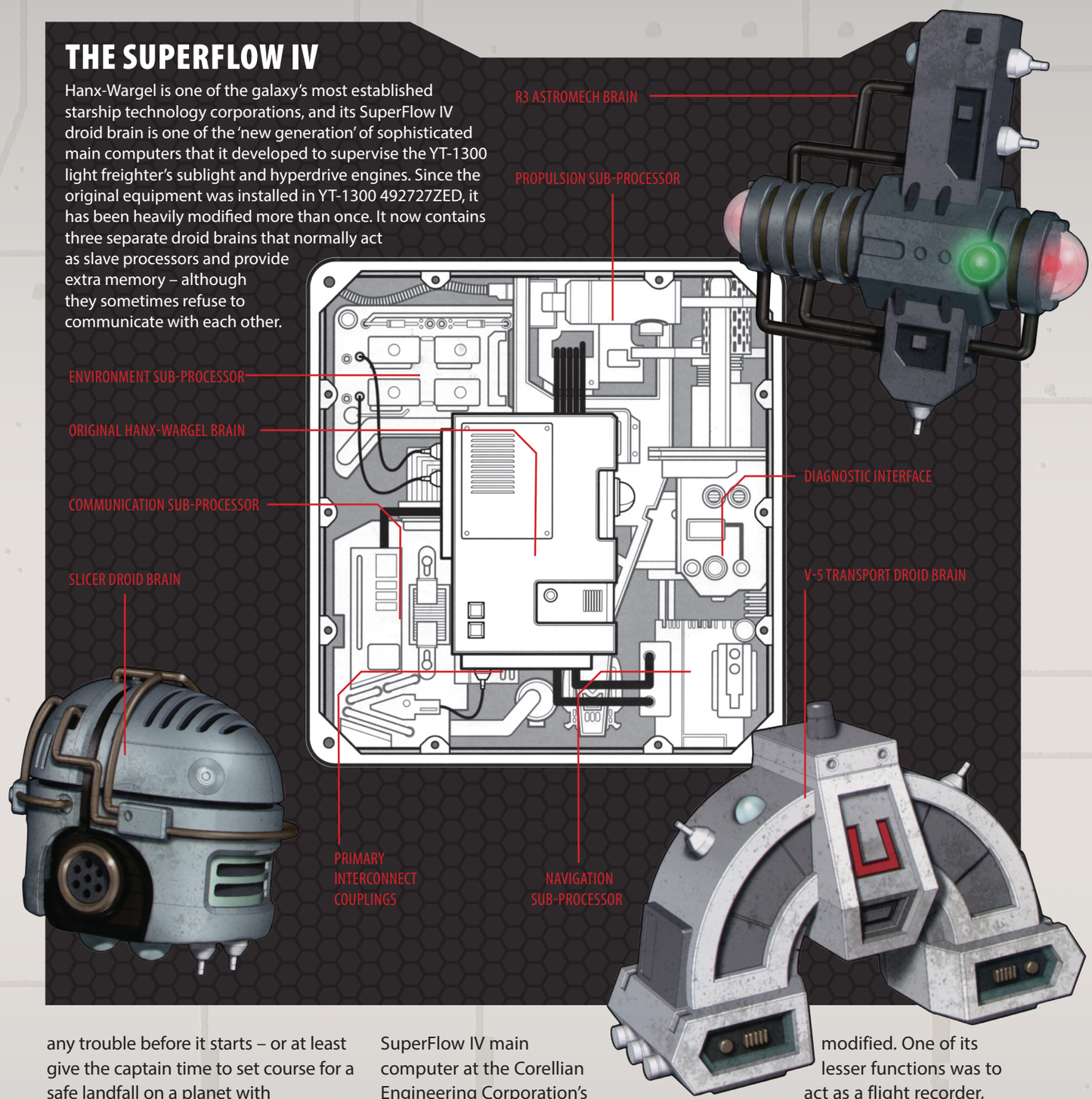
The main computer is connected to every key system in the starship, managing them on behalf of the captain and crew. Usually, there is a central brain to do most of the heavy-duty processing work, with a series of primary sub-processors dedicated to handling specific tasks. For example, the ship's environmental, propulsion, navigation and communication systems each have their own dedicated sub-processor.

Regular system checks are important. If the central brain or sub-processors ever become inoperable (either due to battle damage or a lack of proper maintenance), a starship is likely to become a dead hulk in space, unable to sustain its crew and passengers or even issue a call for help via the subspace radio. Every good starship engineer needs to know the condition of each individual component inside the ship's computer, as well as its operational life. They also need to understand how to use the main computer's built-in diagnostic interface. This essential knowledge will head off

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THE SUPERFLOW IV

Hanx-Wargel is one of the galaxy's most established starship technology corporations, and its SuperFlow IV droid brain is one of the 'new generation' of sophisticated main computers that it developed to supervise the YT-1300 light freighter's sublight and hyperdrive engines. Since the original equipment was installed in YT-1300 492727ZED, it has been heavily modified more than once. It now contains three separate droid brains that normally act as slave processors and provide extra memory – although they sometimes refuse to communicate with each other.



any trouble before it starts – or at least give the captain time to set course for a safe landfall on a planet with breathable atmosphere.

THE FALCON'S CENTRAL COMPUTER

Sixty years before the Battle of Yavin, a new generation of droid brain oversaw the construction of the YT-1300 Corellian freighter that would become the *Millennium Falcon*. The brain was installed at the very center of a stock Hanx-Wargel SuperFlow IV main computer at the Corellian Engineering Corporation's Orbital Assembly Facility 7, and the ship was built around it. It was as if Hanx-Wargel had made the SuperFlow IV especially for the CEC's new line of light freighters, as the hi-tech and malleable new hardware could easily handle the fact that no two YT-1300s left the assembly facility the same. The computer was also able to adapt to the ship itself if it was upgraded or modified. One of its lesser functions was to act as a flight recorder, maintaining a record of the ship's travels, registrations, and many upgrades. Various pilots of the craft also recorded their thoughts within it.

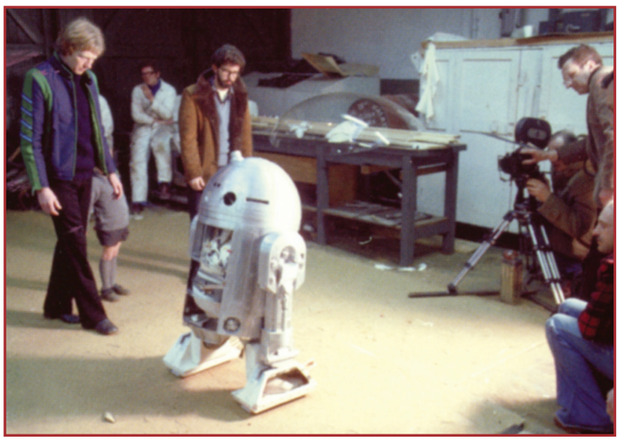
Over time, the *Falcon*'s computer had to be reconditioned more than once, most notably after the ship was badly damaged by a collision after the Clone Wars. Because of the high cost of a factory-guaranteed SuperFlow, the

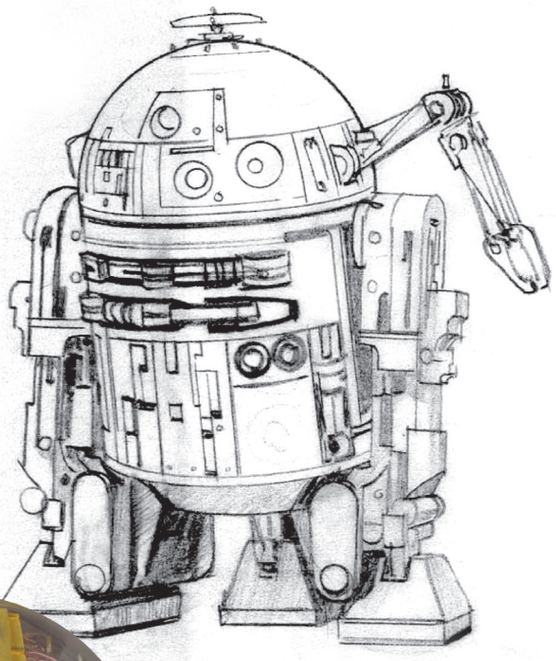
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BEHIND THE SCENES

BEN BURTT AND THE CREATION OF DROIDSPEAK

One of C-3PO's key functions is to act as an interpreter between humans and droids' computer brains, although some people are able to understand what droids such as R2-D2 are trying to communicate. All droids can 'speak' and understand Binary, also known as Droidspeak, but there is no direct relation between the Binary of the *Star Wars* galaxy and the binary numeric system that forms the basis of real-world computer architecture. When Droidspeak is vocalized, it is composed of electronic sounds including beeps, buzzes, chirrups, whistles, and whoops. When *Star Wars* sound designer Ben Burtt was tasked with coming up with R2-D2's 'speech', he wanted to use a mixture of mechanical, 'robotic' sounds and the 'organic' patterns of human vocalization. Originally, Burtt wanted to record babies making babbling, 'ga-ga, goo-goo' sounds, but it was almost impossible to get them to perform on cue. Instead, he recorded human noises and sounds, modified them electronically, and mixed them with electronic noises he synthesized. Once he had enough to sound like an entire vocabulary, this was stitched together to make all of R2's dialogue for the films.



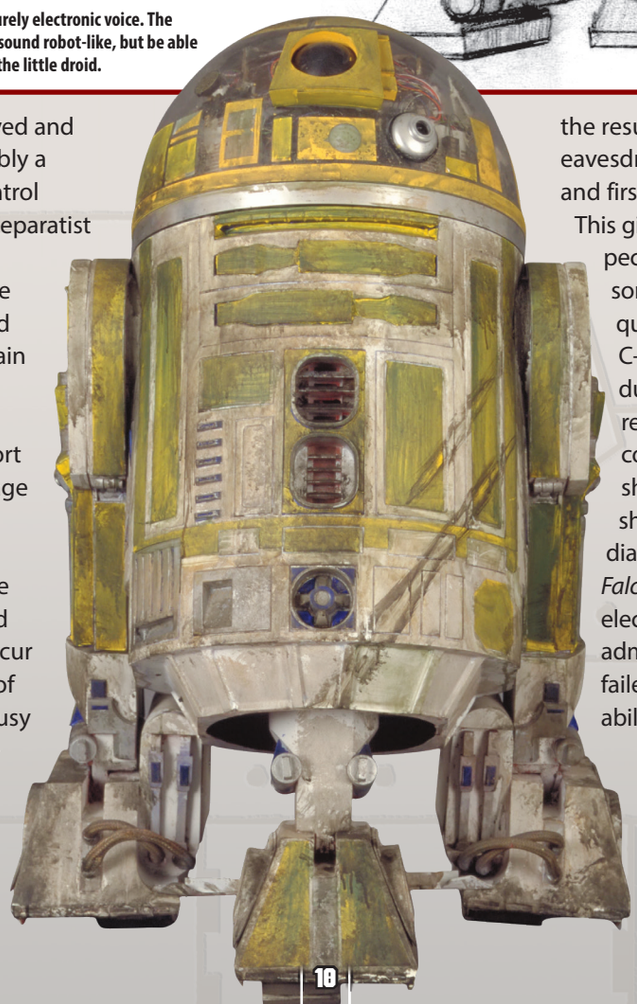


R2-D2 was always intended to speak in a purely electronic voice. The challenge was to create a voice that would sound robot-like, but be able to convey the emotions and personality of the little droid.

ship's original brain was removed and replaced with what was probably a superior targeting and fire-control unit from a decommissioned Separatist tri-fighter command ship.

These days, not one, but three separate droid brains are linked into the *Millennium Falcon*'s main computer. The very different brains of a military-issue R3 Astromech droid, a V-5 transport droid, and a corporate espionage droid were all hooked up together to wrangle greater efficiency and speed out of the ship. Sometimes it works – and hopefully any failures don't occur during emergencies. The rest of the time, when they are not busy with important tasks, the jury-rigged droid brains bicker constantly. It is not clear whether this is down to basic programming conflicts, or the result of behavior picked up from eavesdropping on the ship's captain and first mate.

This gives the *Falcon* her own set of peculiarities, and explains her sometimes temperamental qualities. When protocol droid C-3PO was assigned diagnostic duties as the *Falcon* took refuge in an asteroid field, he commented that wherever the ship learned to communicate, she spoke the most peculiar dialect. To some mechanics, the *Falcon*'s main computer is an electronic horror, but those who admire the ship have completely failed to replicate its computing abilities elsewhere.



One of the *Falcon*'s droid brains came from an R3 unit, whose cognitive modules exceed those of the R2 in speed and power, while its Intellex V computer has the capacity to store intricate data.

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YOUR NEXT PARTS

Continue assembling the passage tube by lining the rear side of the base with padded cushions, which are provided on a sprue, as before.

In addition to the parts you need for the corridor, you have another hull frame, plus some screws and connectors. Keep these until later on.

COMPONENTS CHECKLIST

1. Hull frame BF-25
2. Cushion pads (set of 12 on sprue)
3. 4-hole connector
4. 2-hole connector
5. Fixing screws (x 4, plus spare)

WHERE THE PARTS FIT

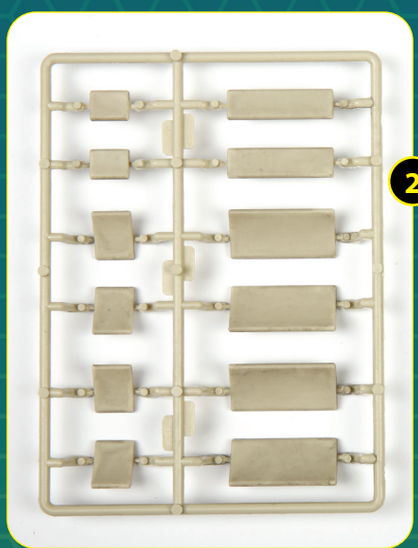
HULL FRAME



Part 1 is for the **underside** of the hull.



INTERNAL DETAILS

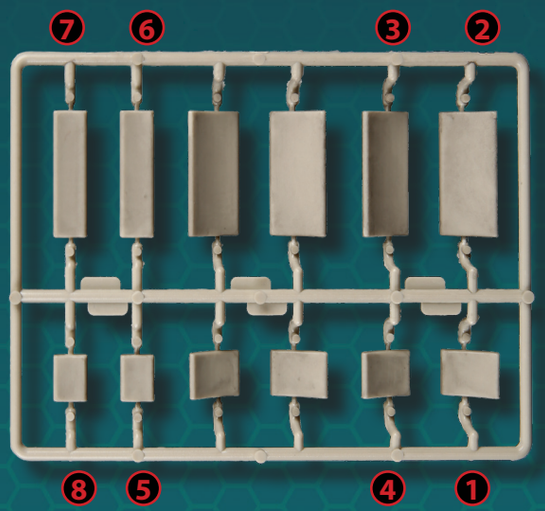




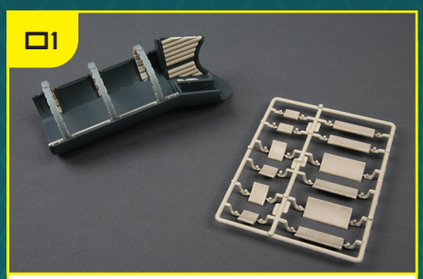
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FITTING THE CUSHION PADS

The rear side of the passage tube uses eight of the 12 strips of padding supplied on a sprue. Use the photographs on the right to see which strips go where, noting that they only fit one way up. To avoid problems, test-fit the whole assembly before gluing any strips.

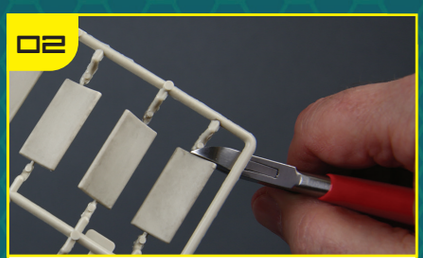


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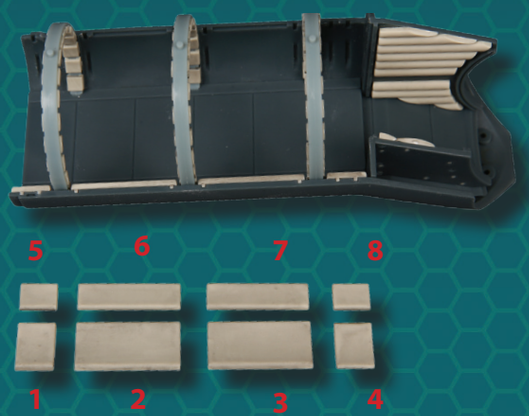


Take the corridor assembly and Part 2, the cushion pad sprue.

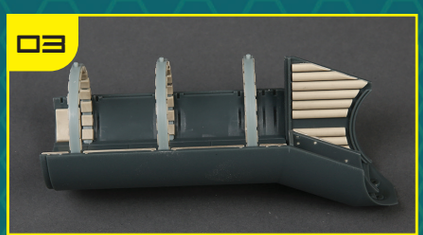
02



Clip the strips off the sprue as you need them and trim off any molding flash. Be careful not to lose any small pieces.

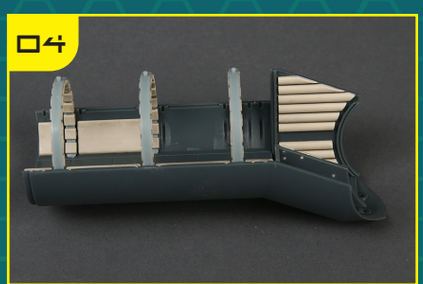


03



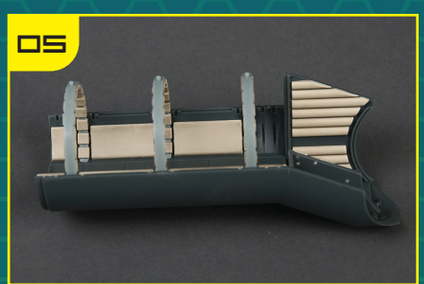
The first piece (1) has a pin on the back to avoid mixing it up with the similar one that has a rectangular tab. Glue it in place with a spot of superglue.

04



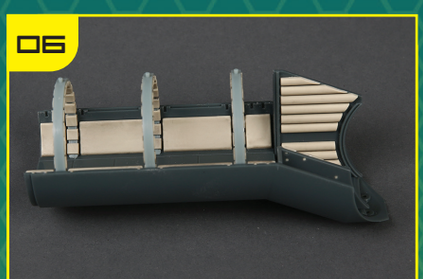
Add the second strip (2) between the corridor arches in the same way.

05



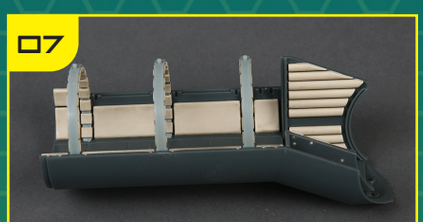
The third strip (3) is fitted between the corridor arches in the same way.

06



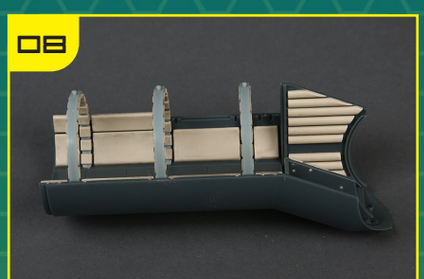
The fourth strip (4) fits between the corridor liner and the first arch.

07



Unlike Stage 21, the tabs on the fifth strip (5) go right across the molding. This piece fits with its upper half overhanging the edge of the tube.

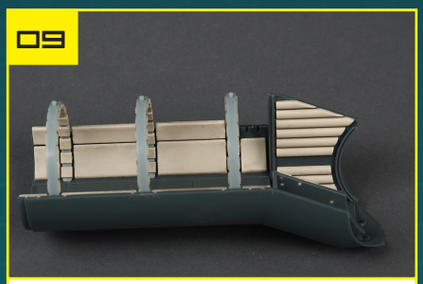
08



Add the sixth strip (6), which overhangs the edge of the tube in the same way.

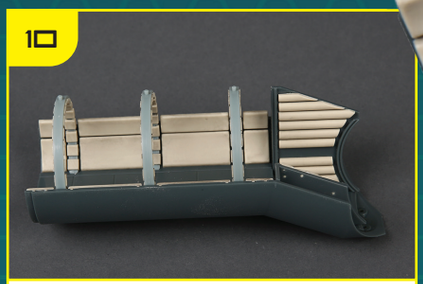
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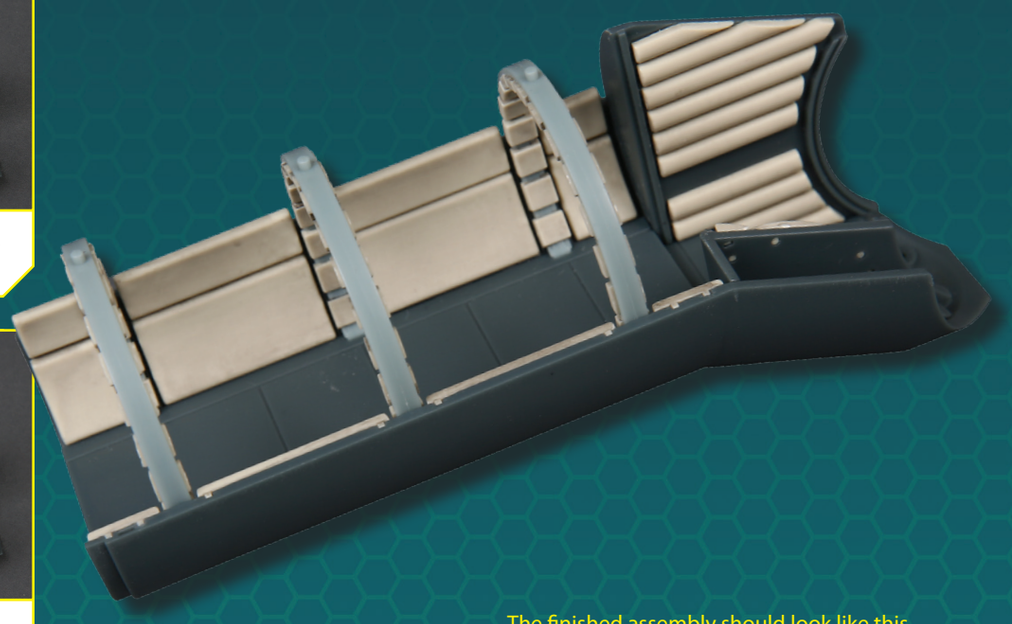


The seventh strip (7) also overhangs the edge of the tube.

10



Complete the run of upper strips by fitting (8) against the liner.

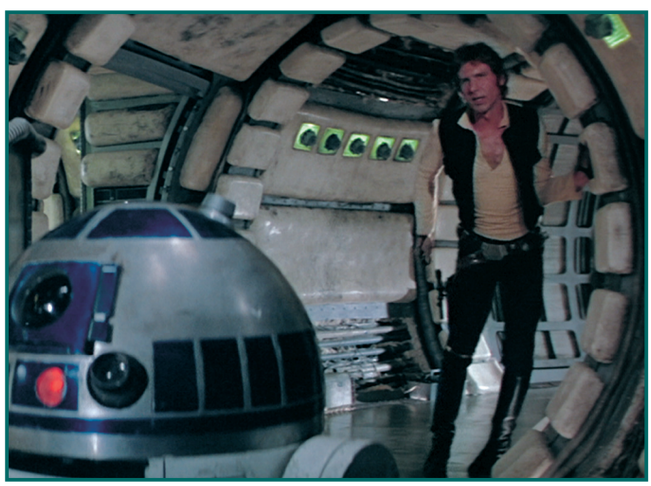


The finished assembly should look like this. Keep the four remaining cushions to add to the top of the corridor in Stage 23.

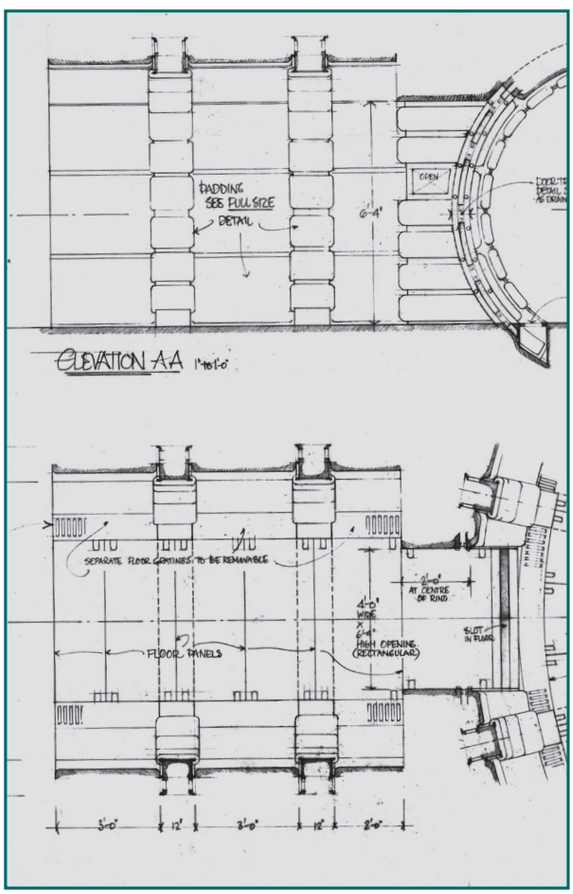
CORRIDOR SET DETAILS

Construction drawings from 1976 show some interesting features in the planning of the movie set depicting the corridor and passage tube. The entrance to the passage tube is a pinch-point described as '4'0" WIDE X 6'4" HIGH OPENING (RECTANGULAR)', and there were to have been removable gratings running along both sides of the floor of the tube. While the general layout of the set remained the same, some of the details changed. In particular, the entrance became even more cramped, with a lower ceiling, and the gratings (which may have related to the smuggling compartments that ended up in the main corridor) remained in place.

This still from Episode IV (*below*) shows the limited headroom in the main corridor and the reduced height of the side entrance. Harrison Ford is 1.85m (6 ft 1in) tall.



A detail (*right*) of a set drawing from 25 March 1976, showing the construction of the corridor.



BEHIND THE SCENES

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STAR WARS MILLENNIUM FALCON

FANHOME

DeAgostini COLLECTIBLES

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