PUBLISHED WEEKLY

ISSUE 1

STAR WARS™

BUILD YOUR OWN X-WING



A SUPERB MODEL OF LUKE SKYWALKER'S 'RED FIVE' STARFIGHTER

DeAGOSTINI

ALSO INSIDE

CREATING A STARSHIP FLEET
RALPH MCQUARRIE

STARFIGHTER ACES
LUKE SKYWALKER

CONTENTS ISSUE 1

STAR WARS
BUILD YOUR OWN
X-WING

CREATING A STARSHIP FLEET 3
RALPH McQUARRIE – THE MAN WHO DREW *STAR WARS*

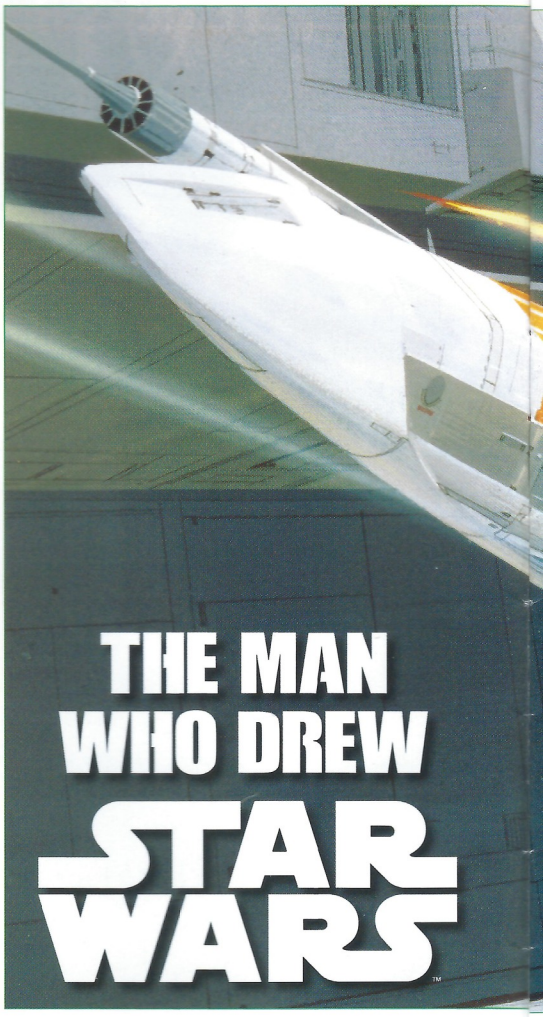
A profile of the artist chosen by George Lucas to realise his vision of a galaxy a long time ago and far, far away.

STARFIGHTER ACES 6
LUKE SKYWALKER – SAVIOUR OF THE REBEL ALLIANCE

As the Death Star loomed, the future of the rebel base on Yavin 4 rested on the inexperienced pilot of a single X-wing – Red Five.

BUILD THE X-WING 10
COCKPIT CANOPY, CANNON, AND ASTROMECH DROID (R2-D2)

This issue includes Red Five's hinged cockpit canopy, plus parts to start making a laser cannon and R2-D2.



CUSTOMER SERVICES

To receive your issues by post:
Call the Order Line on

UK and Ireland	0845 1489 251
Australia	(03) 9872 4000
New Zealand	(09) 928 4493
South Africa	(011) 265 4304
USA	1-877-544-6779

MISSED A COPY?
Please call Customer Services

UK and Ireland	0333 300 1517
Australia	(03) 9872 4000
New Zealand	(09) 928 4493
South Africa	(011) 265 4304
USA	1-877-544-6779

or ask your newsagent to reserve future issues for you to collect. (NOT USA)

PUBLISHING INFORMATION

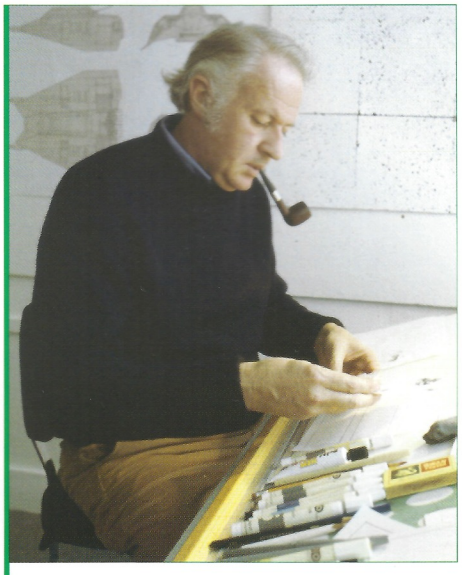
ISBN 978-1-4439-4607-0 BYOXWN01 18 12 19 Printed in the UK
Editorial and design by Continuo Creative, 39-41 North Road, London N7 9DP

© & TM 2018 LUCASFILM LTD.

Published by De Agostini UK Ltd, Battersea Studios 2,
82 Silverthorne Road, London SW8 3HE, UK

PICTURE CREDITS
All images © 2018 Lucasfilm Ltd with the exception of p3 Copyright © Boeing. All Rights Reserved. All images p10-15 originated by Continuo Creative Ltd.

VISIT THE WEBSITE deagostini.co.uk/buildxwing



Ralph McQuarrie, pictured at his drawing board with his favoured Magic Markers and gouache, was born on 13 June 1929 in Gary, Indiana. His movie career included work on the original *Star Wars* trilogy, the original *Battlestar Galactica* television series and *E.T. the Extra-Terrestrial*.

RALPH McQUARRIE



Ralph McQuarrie – the artist chosen by George Lucas to realise his vision of a galaxy a long time ago and far, far away – brought a special expertise when it came to drawing the starships and vehicles of *Star Wars*. He had spent years as a technical illustrator working for Boeing, and also drew diagrams of the Apollo space missions for NASA and news broadcasts. The medium he used (mostly gouache with touches of watercolour and acrylic) was normally used for slick, clean technical illustrations, but the vision he set down as production illustrator were described by one reviewer as 'pioneering the "used future" aesthetic… a lived-in galaxy that was gritty, dirty, and in advance states of decay.'

In his early 20s, McQuarrie was drafted to serve in the Korean War, where he survived a bullet that pierced his helmet and wounded him in the head. Later, after training in advertising design, McQuarrie worked on dental illustrations before being employed as a concept artist at Boeing – where his work in the 1950s and '60s included diagrams for the factory manual on building the 747 Jumbo Jet.

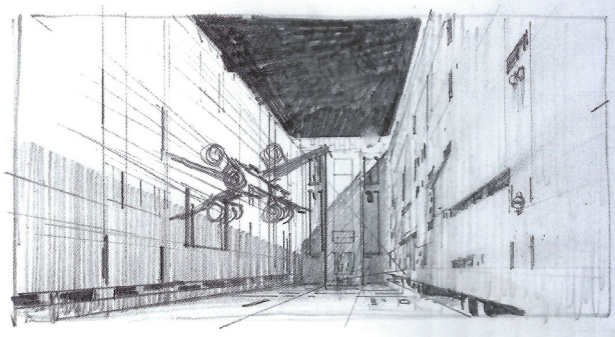
BREAKING INTO THE MOVIES

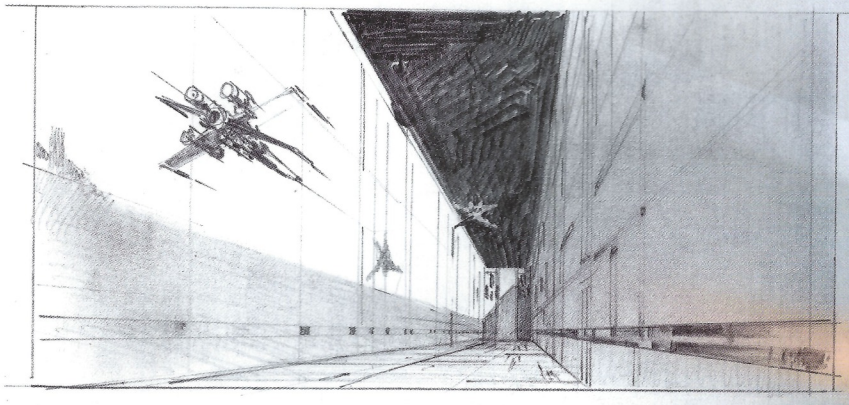
This experience enabled Ralph to visualise ships that didn't just look good, but also looked as if they would work. 'I've always had sort of a dreamworld approach to sitting and sketching…,' McQuarrie once said. 'I go for the romantic and what looks interesting, while half my mind is occupied with practicality.'

Screenwriter Hal Barwood, who met Ralph at Boeing, gave him his movie break when he wanted some visuals for a sci-fi movie project. Barwood also introduced McQuarrie to his college friend George Lucas, who liked what McQuarrie was doing and talked about



McQuarrie's work for Boeing in the 1960s included concept illustrations for the 733 swing-wing supersonic jet, an idea that the company proposed as an answer to its European rivals' Concorde.





The first details of the X-wings' attack run featured on concept sketches by Joe Johnston. The ships themselves would be worked up into technical drawings by Steve Gawley in September/October 1975.

his ideas for a space war picture. McQuarrie thought these sounded very ambitious, but when Lucas contacted him again a couple of years later, he jumped at the chance.

BRINGING STAR WARS TO LIFE

McQuarrie's first *Star Wars* illustrations were finished in early 1975, and included views of Y-wings diving on the Death Star. The details of the rebel ship itself had been developed by Industrial Light & Magic's model-maker Colin Cantwell – another early Lucas hiring, who also worked on the first designs for the X-wing together with effects artist Joe Johnston.

Ralph sometimes worked at ILM so he could see the latest modifications made by Johnston and the model-makers, and incorporate them into his drawings. Whenever he came in, the team would gather to see what he had produced. Model-builder Paul Houston recalled, 'One time Ralph folded the tissue paper back to reveal this painting of a TIE fighter over the Death Star with an X-wing – just this incredibly detailed, beautiful painting… I was just knocked out by that vision.'

McQuarrie's production paintings were the catalyst that the film-makers used to bring the world of *Star Wars* to life. As George Lucas put it, he could always point to one of Ralph's illustrations and say, 'do it like this'.

At this stage, McQuarrie explained, 'George just wanted an atmosphere sketch of the action…'. The Death Star trench was much smoother than it would become, and the laser cannons were set low in the floor. This would evolve, like the X-wing itself.

PAINTED TO ORDER

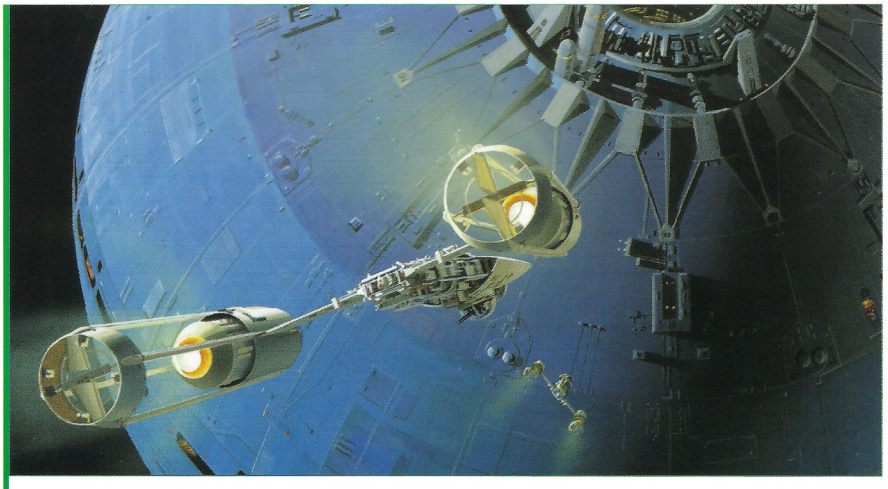
Ralph was quick to point out that his paintings were based on Johnston's ideas. He said that had he known how much his illustrations would be viewed, he would have tried to put more of a polish on them, but had felt that his work was only intended to be seen by those involved in bringing the film to life. If the design of the ships changed, so be it: 'I would put them in and paint out the one I had.' In the case of the *Millennium Falcon*, this meant changing it completely, from a 'rocketship' to a 'flying saucer'.

Changes to the X-wing only affected subtle details, so there was no need for McQuarrie to alter the production paintings, in which the engine intakes were shown as half circles, instead of the full circles that they became in the final T-65. But almost three decades later, *Star Wars* fans would identify the similarities between the original design and the T-70 X-wing that featured in *The Force Awakens*.

"I go for the romantic and what looks interesting." *Ralph McQuarrie*

LASTING LEGACY

McQuarrie's influence on *Star Wars* went way beyond simply drawing ships and vehicles. His concept art included visuals for Darth Vader, R2-D2 and C-3PO, and Chewbacca, and even though he declined the offer to work on the prequel movies, they included features based his original concept art. After McQuarrie's death in 2012, George Lucas commented: 'His genial contribution… propelled and inspired all of the cast and crew of the original *Star Wars* trilogy. When words could not convey my ideas, I could always point to one of Ralph's fabulous illustrations and say, "do it like this".'



McQuarrie's first batch of *Star Wars* illustrations, finished in early 1975, included views of Y-wings diving on the Death Star, featuring a ship that had been developed by model-maker Colin Cantwell.



LUKE SKYWALKER

SAVIOUR OF THE REBEL ALLIANCE

With moments to go before annihilation, the whole future of the **Rebel Alliance** base on Yavin 4 rested on a single X-wing, and the ability of its inexperienced pilot and battered astromech droid to hit a seemingly impossible target.

Luke Skywalker was unaware that his father Anakin had once been a fighter ace for the Republic before turning to the dark side. All the young farm boy knew was that he yearned to train as a pilot at the Imperial Academy, like his friends Biggs Darklighter and Tank. But wary of Luke turning out like Anakin, his uncle Owen Lars resisted all his nephew's pleas, insisting that he was needed for the upcoming harvest.

NATURAL ABILITY

As a result, by the time he left Tatooine, Luke's most challenging flying experience came from his adventures barrelling through desert canyons, and shooting at womp rats in his T-16 Skyhopper. Even so, the young Skywalker was impressive enough for Biggs to call him the best bush pilot in the Outer Rim territories.

QUICK REACTIONS

YT-1300 GUNNER

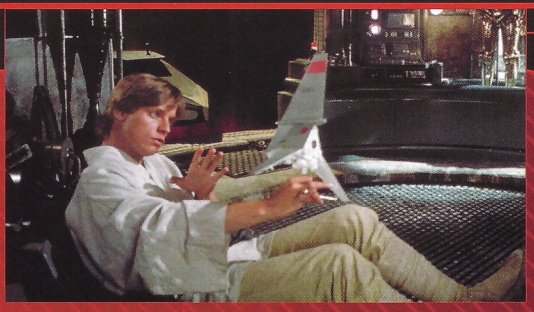
When the *Millennium Falcon* escaped from the Death Star, Han Solo called upon Luke to take control of one of the ship's two AG-2G quad laser cannons. The smuggler grudgingly acknowledged the youngster's abilities and quick reactions, which resulted in the destruction of two of the attacking Imperial TIE fighters.



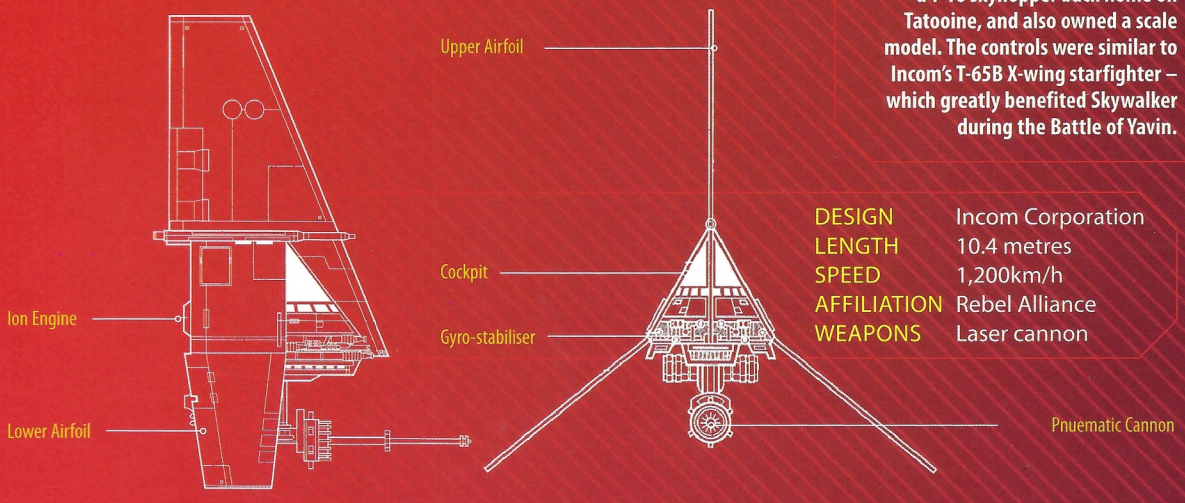
FLIGHT TRAINING

THE T-16 SKYHOPPER

T-16 skyhoppers were personal repulsorlift airspeeders built by the Incom Corporation. With a distinctive tri-wing design, the T-16 was a popular, high-performance transport that was also stable, reliable and easy to keep running. Used examples were cheaply available all over the galaxy, which was one reason why the T-16 provided many youths with their first flight training.



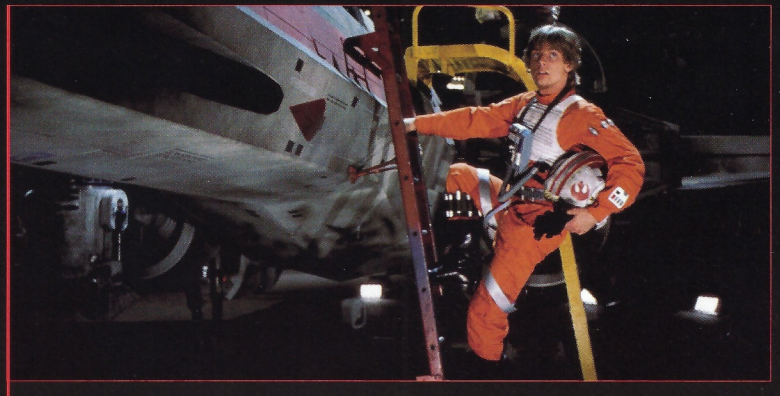
Luke Skywalker had cut his teeth on a T-16 skyhopper back home on Tatooine, and also owned a scale model. The controls were similar to Incom's T-65B X-wing starfighter – which greatly benefited Skywalker during the Battle of Yavin.



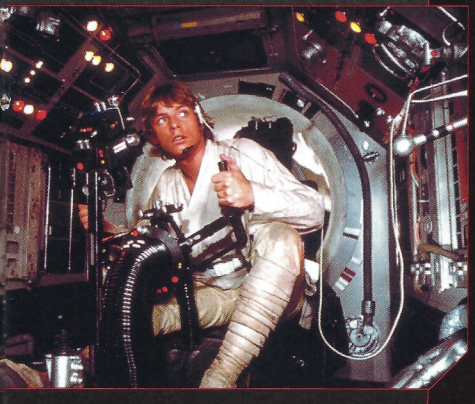
DESIGN	Incom Corporation
LENGTH	10.4 metres
SPEED	1,200km/h
AFFILIATION	Rebel Alliance
WEAPONS	Laser cannon

"It'll be just like Beggar's Canyon back home."

Luke Skywalker



The shortage of skilled pilots at the rebel base on Yavin 4 saw Luke assigned to take over a vacant seat in Red Squadron, although Red Leader was unsure about his new recruit's abilities.



CONNECTION TO THE FORCE

Luke's reputation as a pilot was known by Obi-Wan Kenobi, and while his connection to the Force helped to make up for his lack of formal training, Luke's skills were untried when he left Tatooine for the first time. Han Solo was willing enough to enlist Skywalker's help as a gunner, but never entrusted control of the *Falcon* to him, scornfully reminding the one-time farm boy that dusting crops was no training for travelling through hyperspace.

After the fugitives' arrival on Yavin 4, the rebels were desperate enough for pilots to entrust one of their X-wings to him, but Red Leader Garven Dreis was sceptical about whether his new rookie pilot could really handle the demands of a T-65B until Biggs (Red Three) vouched for him.



DESPERATE ATTACK

Despite Luke's lack of experience, the X-wing's controls were similar enough to the basic Skyhopper for him to be able to fly it, but it was only the rapid attrition of the rebel pilots that saw him being entrusted with the vital attack run. He was buoyed up by the brash confidence he had displayed during the briefing, when he claimed that the precise shot needed to destroy the Death Star was far from impossible.

TARGETING COMPUTER

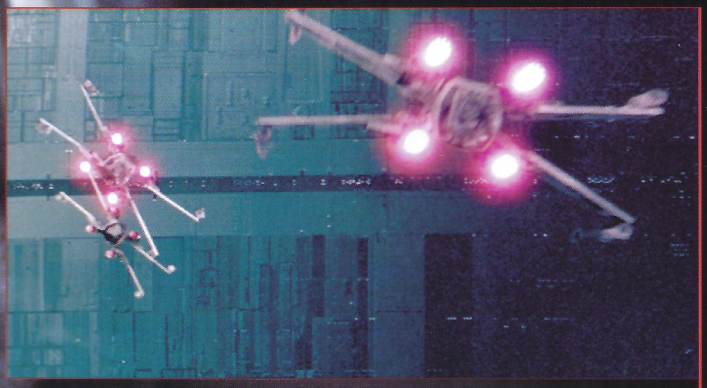
The X-wing's targeting computer was used to aid pilots in aiming their proton torpedoes. A target was vulnerable when it aligned with the electronic crosshairs of the sights. During the attack on the Death Star, Luke switched off his computer and relied on his connection to the Force.

TECH / EQUIPMENT

FLIGHT HELMET

Helmets were one of the most important parts of the flight equipment worn by pilots, providing protection, communications, and often life support, too. Starfighter helmets often included a visor with a special computer projection for targeting, and pilots of the Rebel Alliance often decorated their helmets with the starbird symbol and personal markings.





Luke joined the waves of rebel pilots who swooped to attack the Imperial battle station, where TIE fighters and laser cannons rapidly took their toll.

CALM UNDER PRESSURE

During combat, Luke instinctively displayed two vital characteristics of a great fighter pilot. The first was the ability to rely on his squadron working together to provide cover and focus on the mission, even as members of the team were being shot down. The second was the ability to improvise and switch off the targeting computer to rely on his new-found Force sensitivity to guide him as it had against the remote on board the *Falcon*.



Luke's perfectly placed shot hit the weak point created by Galen Erso, triggering a chain reaction that destroyed the Death Star from within.

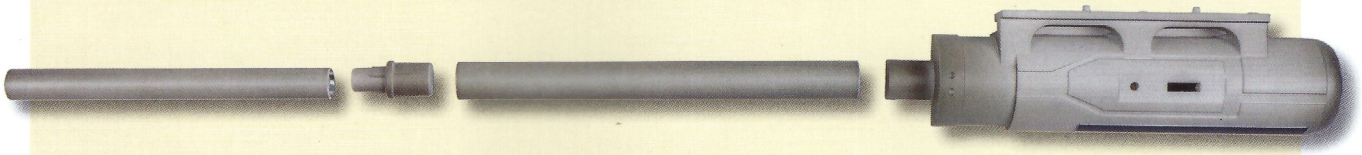
"You're all clear, kid, now let's blow this thing and go home!" *Han Solo*

Cockpit canopy, cannon, and astromech droid (R2-D2)

This issue includes both parts of Red Five's hinged cockpit canopy and the first four parts for the upper starboard (right-hand) laser cannon. You also have R2-D2's domed head, right leg, front body panel and the internal LED that makes his displays light up. You will complete both the laser cannon and R2-D2 over Issues 1-4.

COMPONENTS CHECKLIST

Use this guide to check what parts you have received and where they fit on the model

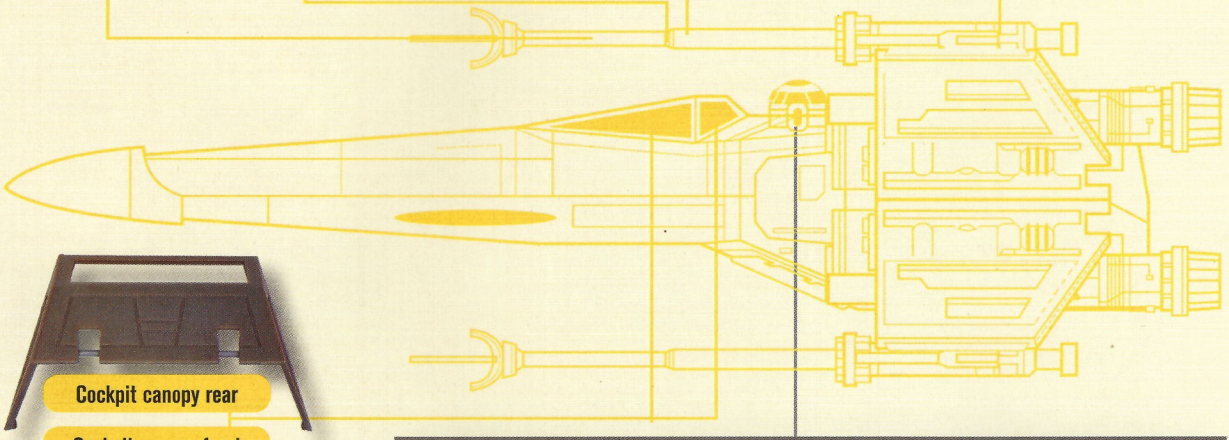


Laser cannon jacket

Laser cannon shoulder

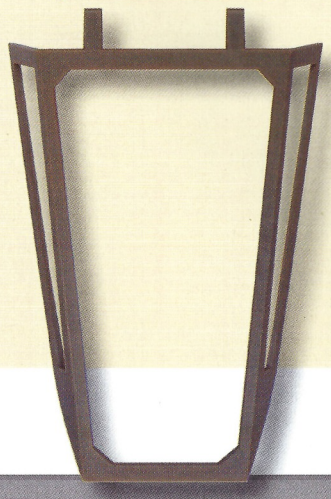
Laser cannon tube

Laser cannon housing (outer half)



Cockpit canopy rear

Cockpit canopy front

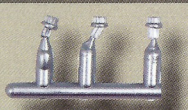


R2-D2 COMPONENTS CHECKLIST

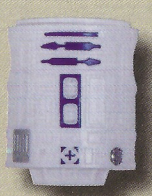


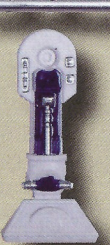
R2-D2 dome

R2-D2 holographic projectors



R2-D2 LED mount







R2-D2 internal LED

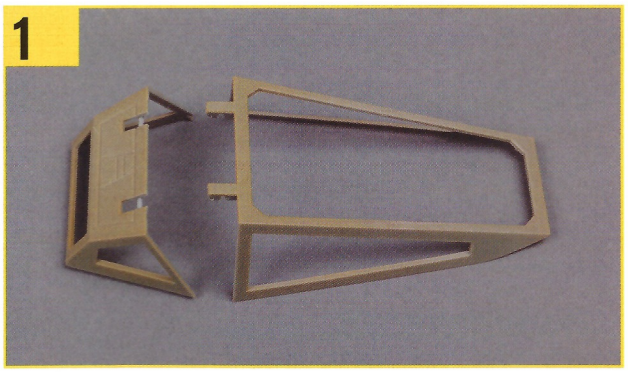
R2-D2 front panel

R2-D2 right leg outer side

ASSEMBLING THE COCKPIT CANOPY

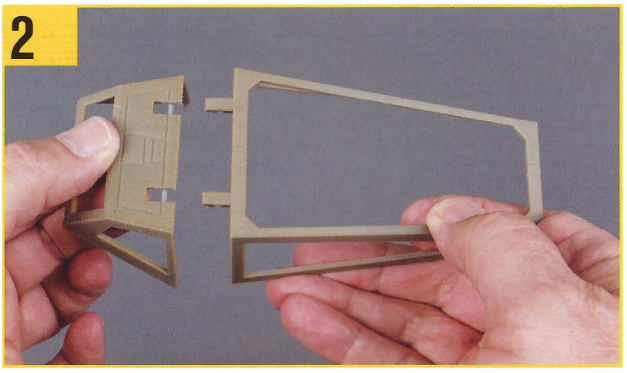
The cockpit canopy comes in two parts. The front hinges upwards, and the rear section is attached to the fuselage. You will add the flat glazing panels at a later stage.

1



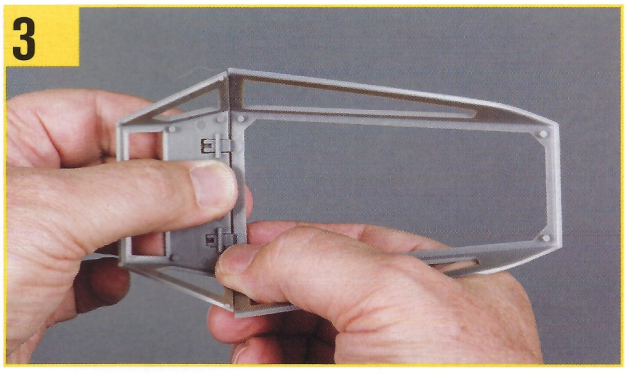
Start by taking the two parts of the canopy provided.

2



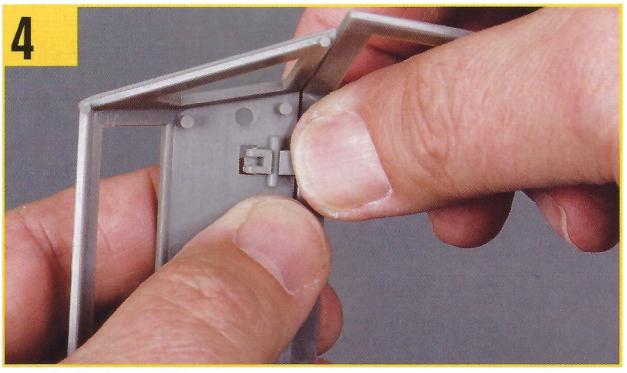
Line up the hinges projecting from the front section with the pins on the rear section.

3



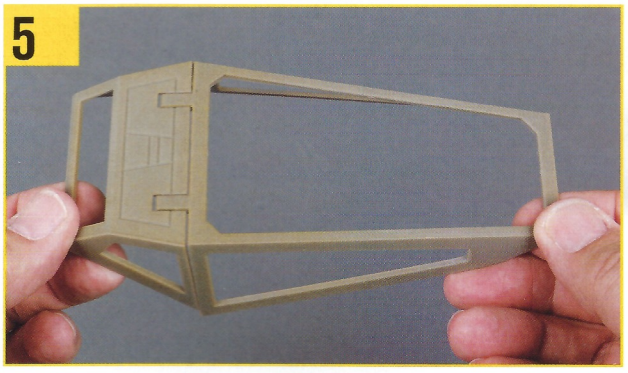
Hook the hinges over the pins.

4

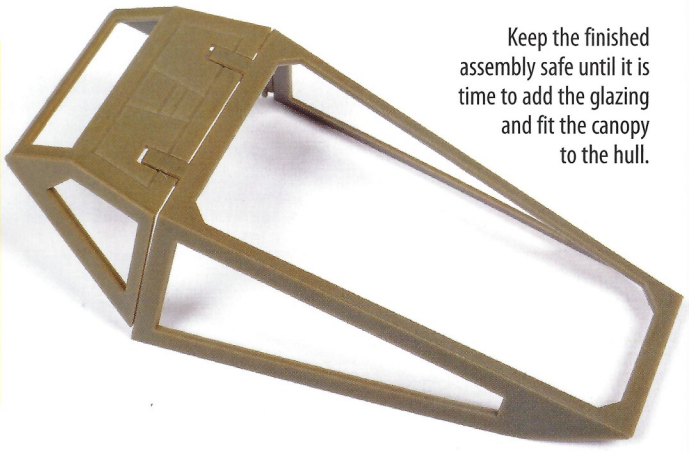


Press the parts together firmly until the hinges snap onto the pins.

5



Check that the canopy hinges smoothly up and down.

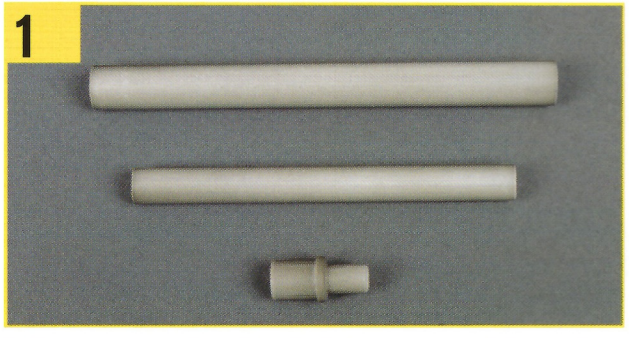


Keep the finished assembly safe until it is time to add the glazing and fit the canopy to the hull.

ASSEMBLING THE FIRST LASER CANNON

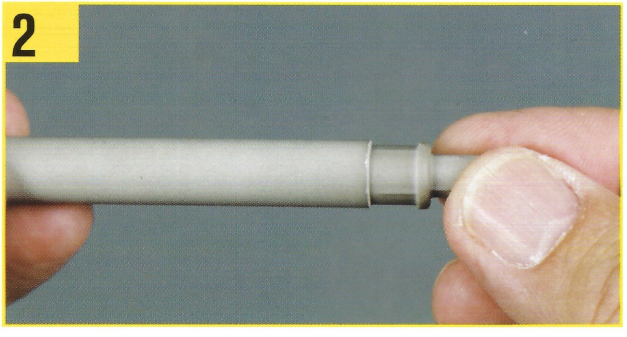
Start by fitting the three sections of the barrel together. You have also received the outer half of the cannon housing, but as you won't assemble this part until Stage 3, keep it safe until it's time to use it.

1



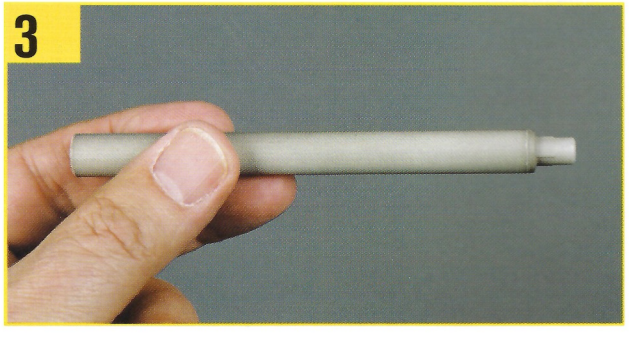
Start by taking the three parts of the cannon provided.

2



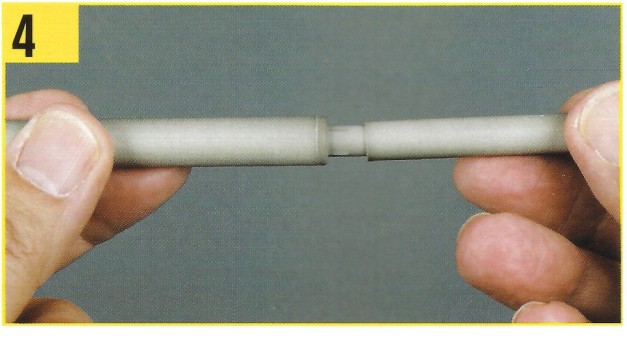
Push the shoulder firmly into the jacket.

3



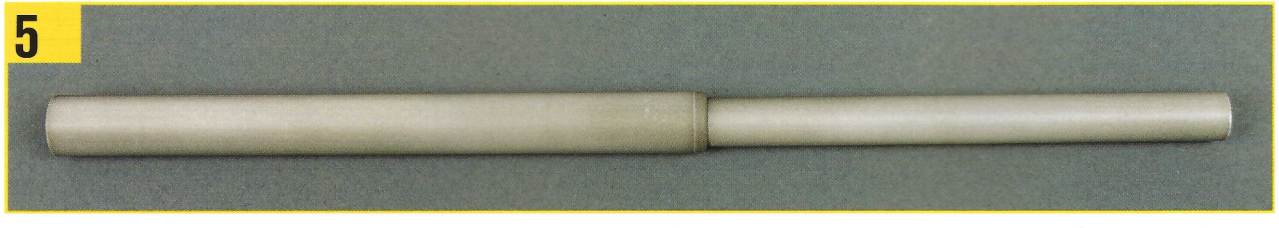
Make sure that the shoulder is seated all the way in.

4



Push the tube firmly onto the shoulder.

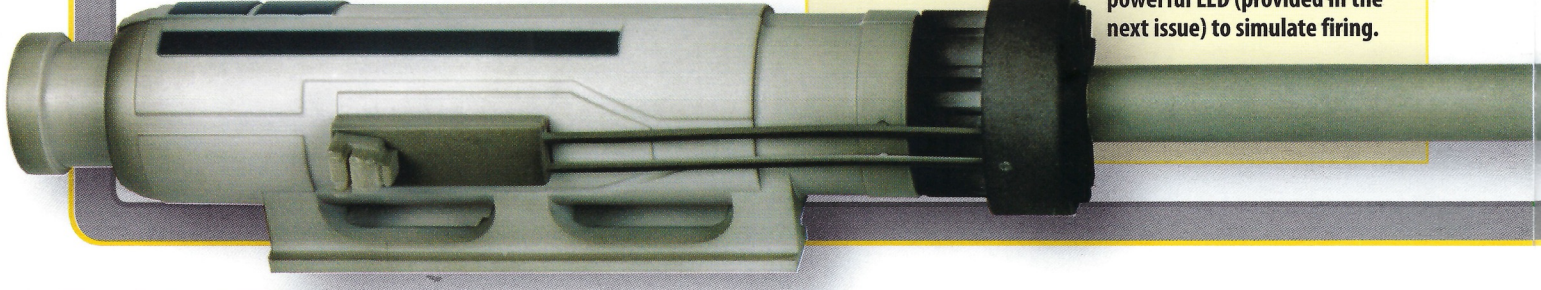
5



Make sure that the tube is fully seated on the shoulder.

LASER CANNON EFFECTS

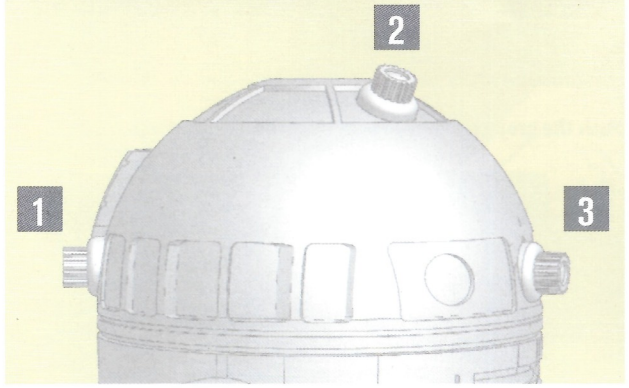
The finished laser cannon will be mounted on the tip of the upper starboard S-foil. The laser generator unit contains a powerful LED (provided in the next issue) to simulate firing.



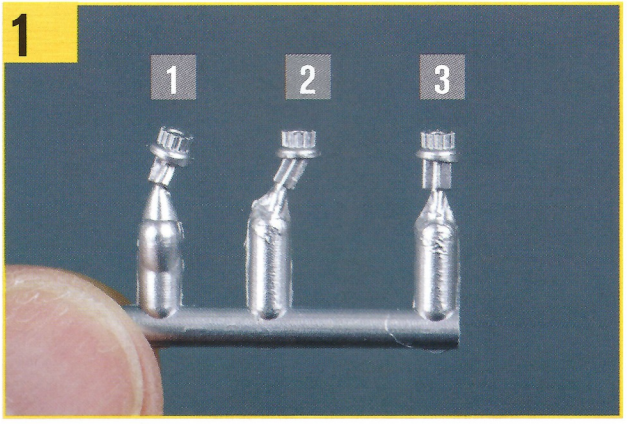
ASSEMBLING R2-D2'S DOME

R2-D2 has three holographic projectors to add to his dome. No glue is needed, as they simply push into place, but make sure you fit them in the right holes, and get them the right way round.

Identifying the holographic projectors

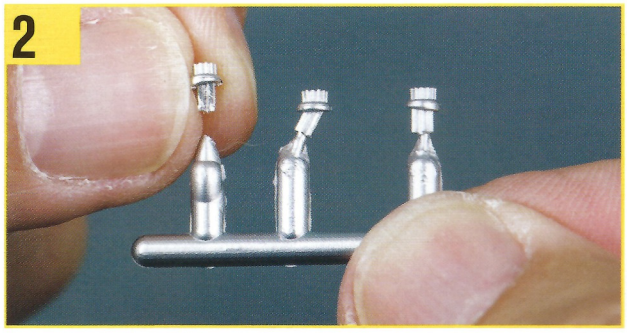


1



Start by identifying the three projectors, as numbered.

2



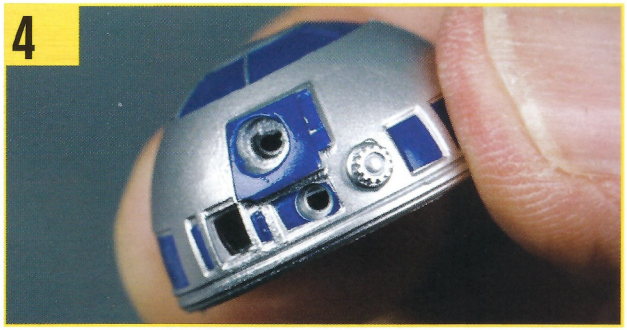
Carefully snap the first projector off the sprue.

3



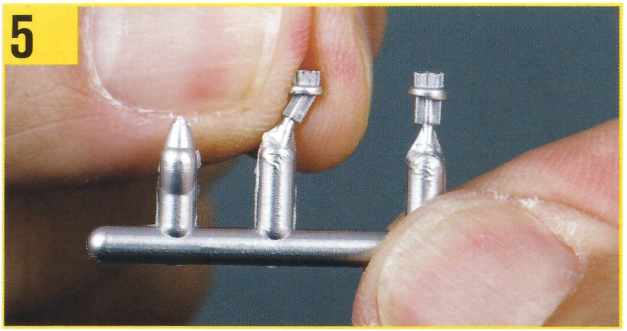
Fit it to the slot in the front of R2-D2's dome, this way round.

4

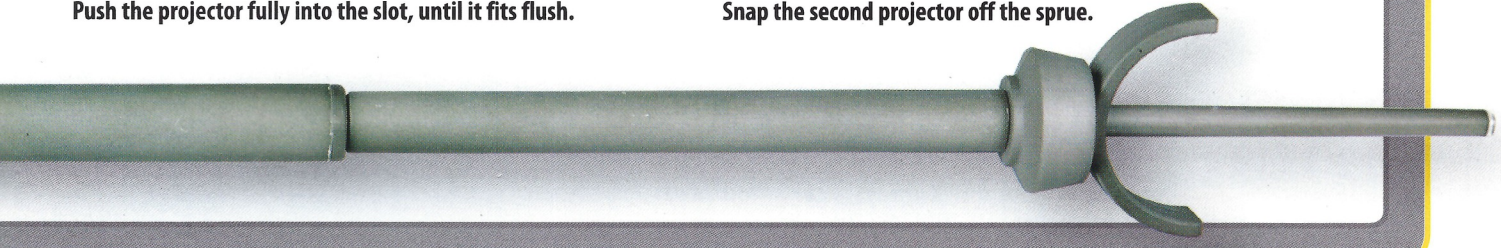


Push the projector fully into the slot, until it fits flush.

5



Snap the second projector off the sprue.



6



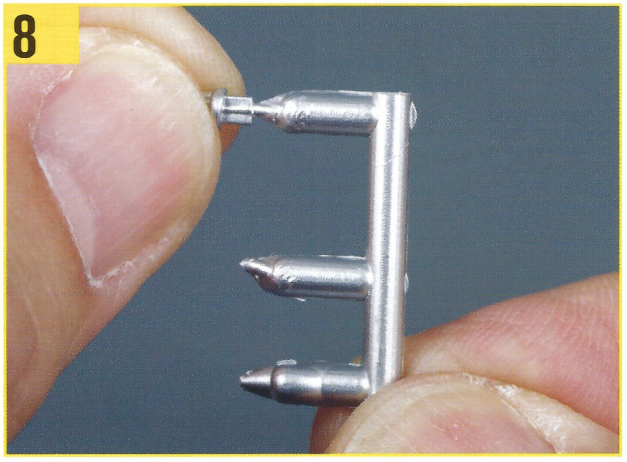
Fit it to the slot on the top of R2-D2's dome, this way round.

7



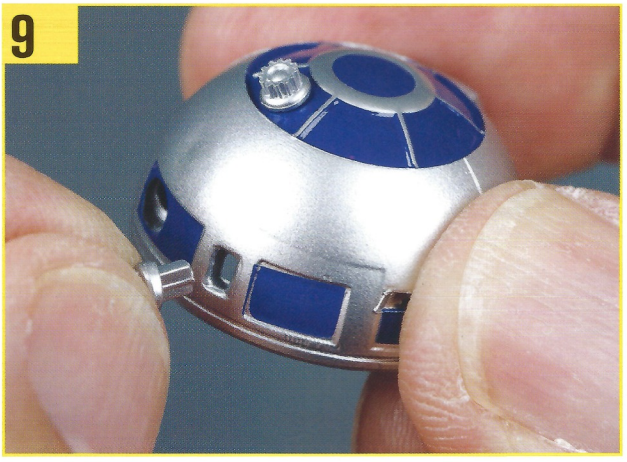
Push the projector fully into the slot, until it fits flush.

8



Snap the third projector off the sprue.

9

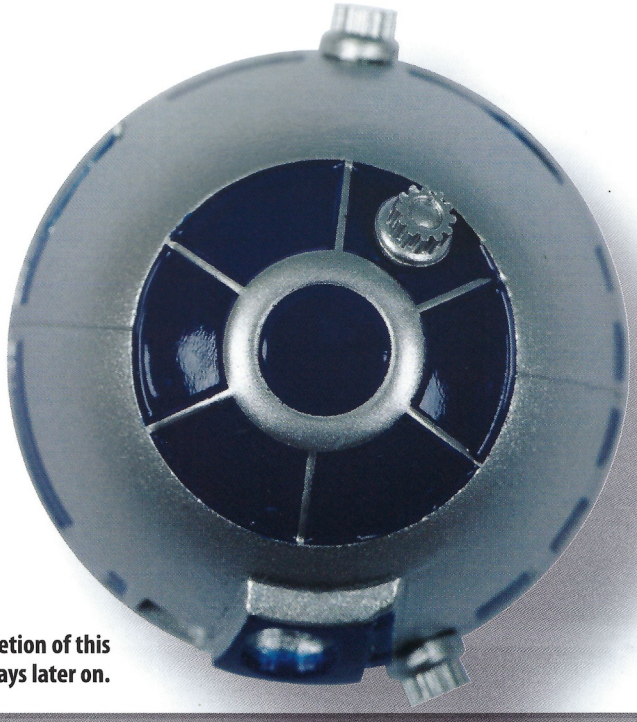


Fit it to the slot at the back of R2-D2's dome, this way round.

10



Push the projector fully into the slot, until it fits flush.

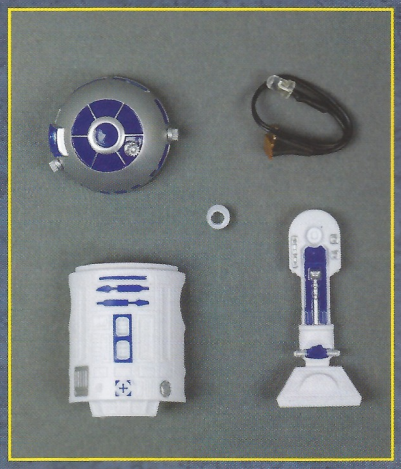


The dome should look like this at the completion of this stage. You will add R2-D2's coloured displays later on.

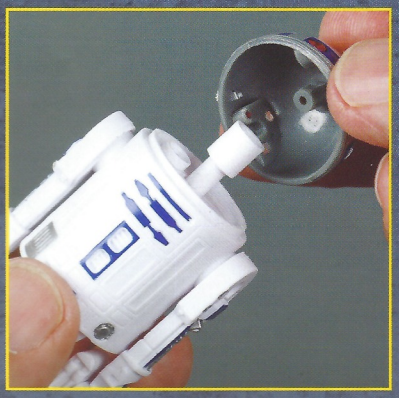
ASTROMECH CONSTRUCTION

How your R2-D2 goes together

You have finished the first stage of the assembly of your little astromech, so keep the dome and other pieces safe until you are ready to continue putting them together with the parts provided over the next three issues. As can be seen in the scenes in the Rebel base, the astromech is a separate assembly that can be plugged into the X-wings' droid socket or removed at any time. Your R2-D2 works in just the same way – so this overview shows you how he is assembled, and what he looks like when he is completed.



The parts provided this time include R2-D2's internal LED and its lead.



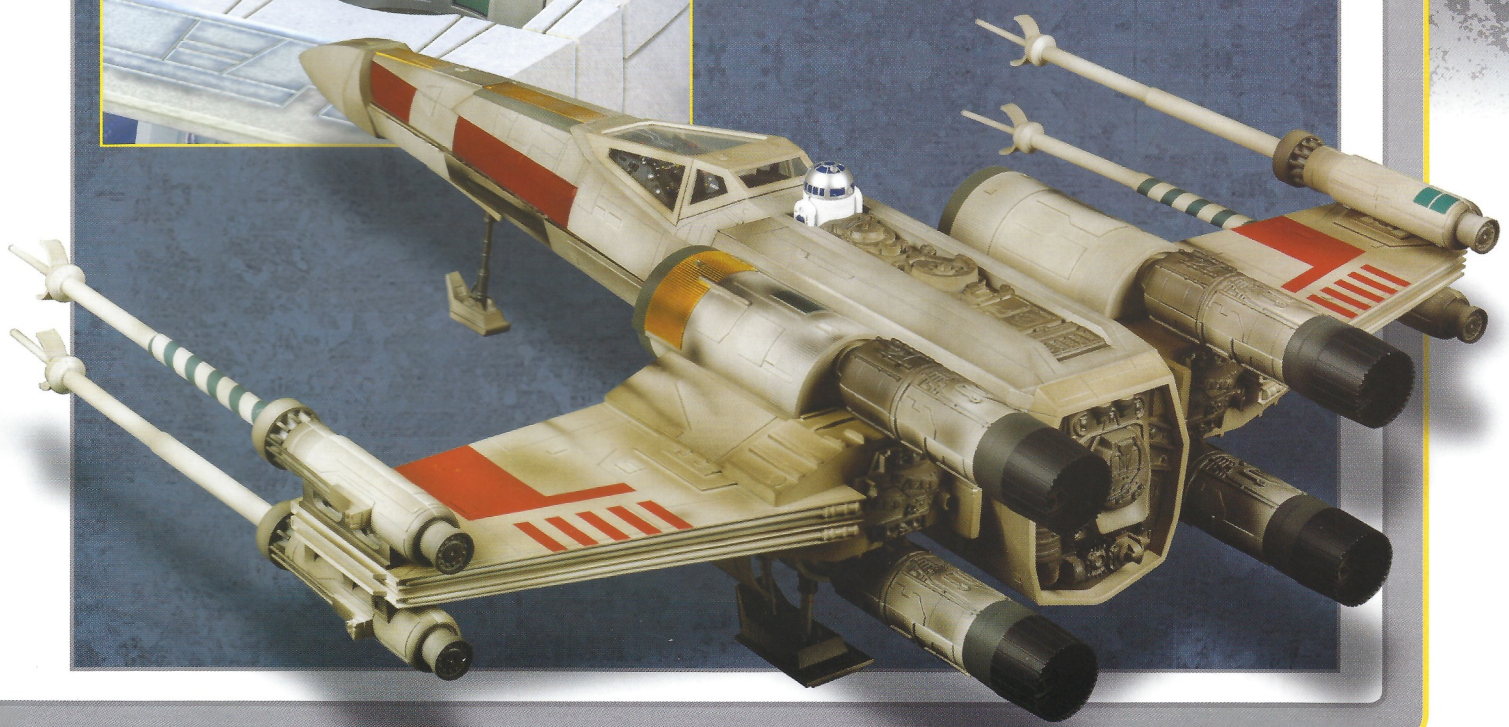
The LED is designed to fit inside the body, shining up through R2-D2's dome, which is mounted on a spindle that turns it from side to side.



The finished R2-D2 has a centre leg to use when he is not installed in the X-wing.



The droid socket in your X-wing is shown on the left. When R2-D2 is plugged in, he makes contact with a power point that illuminates his internal lights, and he also connects to a motor drive in the base, to make his dome rotate.

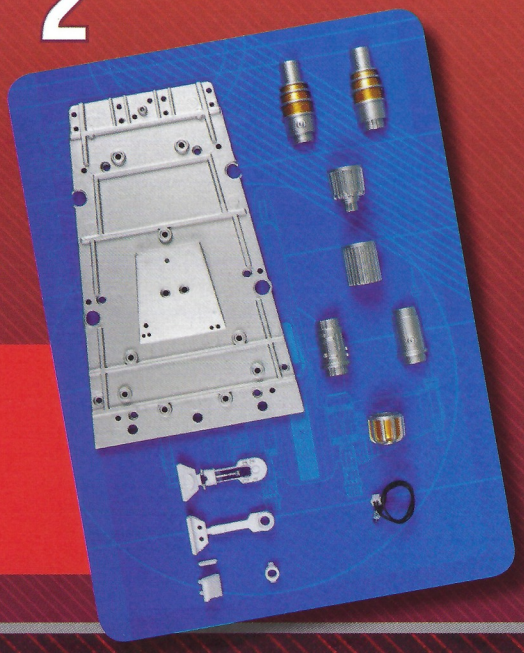


DON'T MISS OUT!

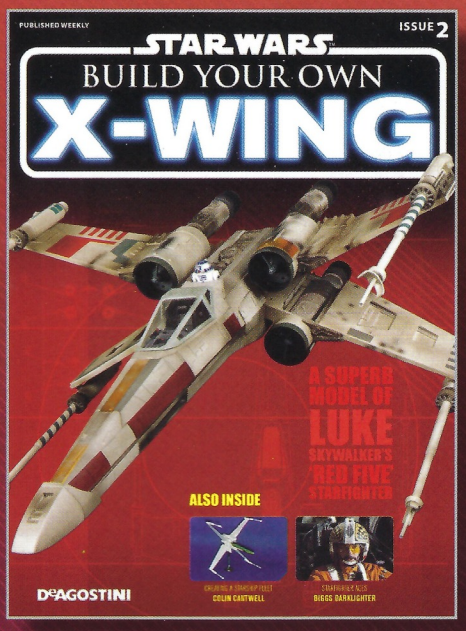
ISSUE 2

Colin Cantwell - Modelling the X-wing

Starfighter Aces: Biggs Darklighter



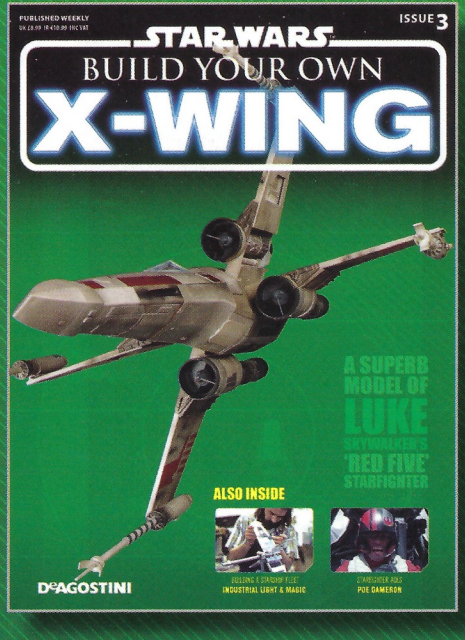
R2-D2's right leg
Laser generator
Laser LED
Cockpit base

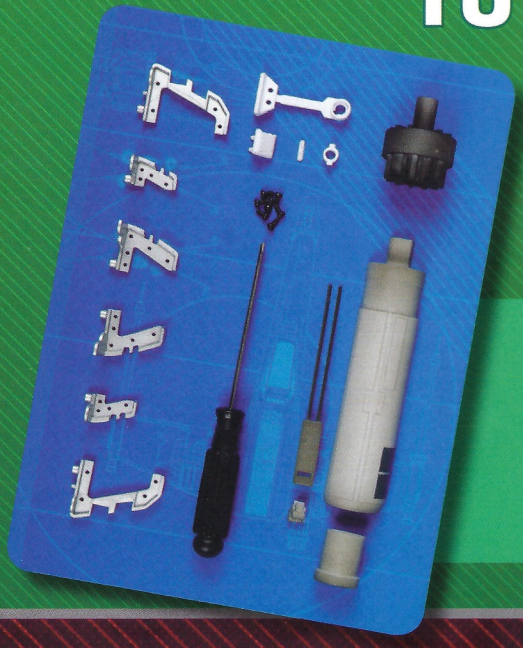


ISSUE 3

Building the X-wing model at ILM

Starfighter Aces: Poe Dameron





R2-D2's left leg
Laser housing
Cockpit frames
PLUS FREE SCREWDRIVER

Items may differ from those shown.

Disney · LUCASFILM

DeAGOSTINI

© & TM 2018 LUCASFILM LTD.

deagostini.co.uk/buildxwing