

# THE DALEK

**BUILD  
THE ICONIC  
BBC**



**MONSTER**



**OUT OF THE VOID!**



**STEP-BY-STEP  
INSTRUCTIONS!**

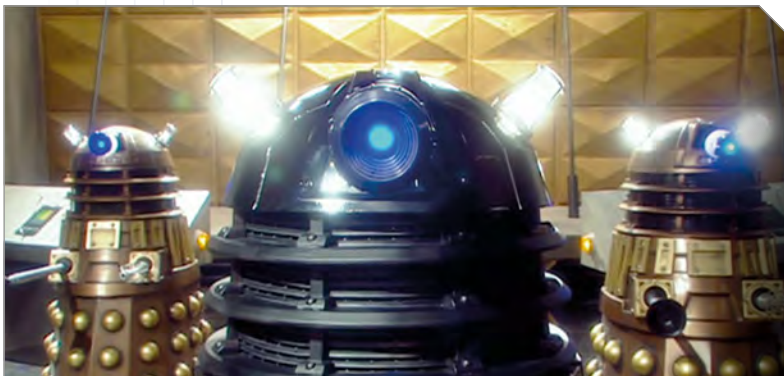
Published  
weekly • £11.99  
AUS • \$23.99





# DALEK

## ISSUE 47



### ADVENTURES IN TIME AND SPACE: ARMY OF GHOSTS

3

Torchwood opens a rift in space, allowing the Daleks to invade Earth.



### BEHIND THE SCENES: BUILDING THE DALEKS - 2

6

The Daleks were updated for their return to TV in 2005.



### STEP-BY-STEP BUILD: PART 47

8

Additional base frame pieces, connectors and all the fixing screws.

## Reader Services

CUSTOMER SERVICE IN THE UK  
AND REPUBLIC OF IRELAND

### How to continue your collection:

Subscribe online at [hachettepartworks.com/Dalek](http://hachettepartworks.com/Dalek) or contact the Customer Service team via [hachettepartworks.com/contact](http://hachettepartworks.com/contact)

### Customer service & back orders:

Please visit [hachettepartworks.com/contact](http://hachettepartworks.com/contact) to get in touch.

UK call 0345 155 9277

ROI call (01) 9079762

(Calls are charged at your local rate from a landline)

Published by Hachette Partworks Ltd  
4th Floor, Jordan House, 47 Brunswick Place, London N1 6EB

General Manager – Isabelle Couderc  
Editorial Director – Helen Nally  
Marketing Director – Elise Windmill  
Production Director – Sema Sant Anna  
Managing Editor – Sarah Gale  
Distribution Manager – Paul Smith  
Product Manager – Rhys Myner

Packaged by Panini Publishing, a division of Panini UK Limited.

Publishing Director Europe – Marco M. Lupoi  
Managing Director – Chris Clover  
Managing Editor – Alan O'Keefe  
Senior Editor – Ed Hammond  
Editor – John Ainsworth  
Designer – Barry Spiers  
Features Writer – Stuart Ashley

Distributed in the UK and Republic of Ireland by Marketforce.

© 2025 Hachette Partworks Ltd

Printed in the UK.

ISSN 2977-5574

ALL RIGHTS RESERVED

The editor's policy is to use papers that are natural, renewable and recyclable products and made from wood grown in sustainable forests. The logging and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

In the event of a significant increase in production and transport costs, the publisher reserves the right to modify its selling prices.

BBC, DOCTOR WHO, TARDIS and DALEK (word marks and devices) are trade marks of the British Broadcasting Corporation and are used under licence. BBC logo © BBC 1996. DOCTOR WHO logo © BBC 1973. Dalek image © BBC/Terry Nation 1963. Licensed by BBC Studios.

The device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

All parts belong to a kit. NOT SUITABLE FOR CHILDREN UNDER THE AGE OF 14. This product is not a toy and is not intended for use in play. Follow the instructions in the enclosed magazines carefully and keep the appropriate information in a safe place. The installation of the electrical and electronic parts must always be carried out by an adult. Requires batteries.

BBC



For our environmental policy in full please scan the QR code here.

 hachette  
PARTWORKS LTD





# ARMY OF GHOSTS

**The Doctor discovers that Torchwood is behind a ghostly invasion of Earth.**

**Series 2 Episode 12**  
**First Broadcast: 1 July 2006**

**R**ose Tyler stands on a beach and reflects on the dull life she led before she met the Doctor and all the extraordinary adventures they had together. But then Torchwood came, and the war. "This is the story of how I died," she thinks.

The TARDIS lands at the Powell Estate, and Rose is reunited with her mum, Jackie. Rose is confused when Jackie says that Rose's granddad, who died ten years ago, will be visiting soon. The Doctor and Rose watch as a blank-faced, ghostly figure appears in Jackie's kitchen. They race outside and find many more 'ghosts' on the Powell Estate, with people treating them as normal. One of them walks through the Doctor. Jackie explains that they only visit for two minutes at this time each day. They all fade away.

Inside the offices of the Torchwood Institute, director Yvonne Hartman watches as two large switches are moved downwards. She announces that they have just measured the ghost energy at 5,000 gigawatts. Everyone applauds.

The Doctor and Rose watch Jackie's TV and learn that the ghosts have been appearing worldwide for two months. Jackie is certain that her ghost is her father: "It just feels like him. There's that smell, those old cigarettes." The Doctor theorises that the ghosts are creating a





psychic link with humans to make their connection to this world stronger.

Yvonne Hartman checks some details with an assistant, Adeola. She also contacts Rajesh Singh, a scientist working in a large chamber nearby. He tells her that a new measuring device has once again failed to detect the presence of a gigantic sphere hovering in the air inside the chamber. He finds it unnerving. Rajesh tries to touch it but recoils.

Adeola exchanges text messages with a Torchwood co-worker, Gareth. They



sneak off together and go into an out-of-bounds area covered in plastic sheeting. Adeola loses sight of Gareth and comes across a Cyberman. She screams...

The Doctor places three devices in a playground near the TARDIS, attempting to triangulate the ghosts' point of origin. Jackie watches Rose working with the Doctor. She is concerned that Rose is changing and will eventually want nothing more to do with Earth.

Adeola and Gareth return to their office as the two switches are pulled again. The ghosts materialise once more. The Doctor puts on a pair of 3-D glasses as one appears inside his trap. Torchwood detects the Doctor's interference and closes the link down. A Torchwood worker named Matt finds the TARDIS on a CCTV camera. He and Yvonne recognise it.

The Doctor runs back into the TARDIS and tells Rose he has located the source of the ghosts' entry into this dimension. He sets the TARDIS in motion before realising that Jackie is still inside. The TARDIS arrives at Torchwood's headquarters. The Doctor is surrounded by soldiers, but Yvonne offers him a warm round of applause. She insists that his companion join them. The Doctor reaches through the TARDIS door and pulls Jackie out.

Yvonne gives the Doctor and Jackie a tour of Torchwood. They have an alien spaceship that they shot down ten years ago. She tells the Doctor that Torchwood destroyed the Sycorax spaceship on



Christmas Day. They intend to rebuild the British Empire with alien technology. "If it's alien, it's ours," Yvonne says. The TARDIS is taken away on a lorry with Rose still inside. She finds the Doctor's psychic paper.

Yvonne takes the Doctor and Jackie to the chamber with the sphere. Rajesh explains that there is no way to analyse it: "It weighs nothing. It doesn't age. No heat. No radiation. And has no atomic mass." The Doctor looks at it with his 3-D glasses. "This is a Void Ship," he says. "It's a vessel designed to exist outside time and space." It can travel in the Void, the infinite space between dimensions. "Some people call it hell," he adds.



## TEN-WEEK SHOOT

*Army of Ghosts* and *Doomsday* were filmed alongside the Cybermen two-parter shown earlier in the series: *Rise of the Cybermen* and *The Age of Steel*. Graeme Harper directed all four episodes. "We did one big ten-week shoot," he said in 2006. "That was tough – not just on me, but on the artistes, certainly on David [Tennant] and Billie [Piper]. I had no days off whatsoever, because I was thinking and planning all the time." This was a budgetary measure devised by showrunner Russell T Davies. "It helped enormously, logistically and financially, to compress four episodes into one [recording] block," Davies explained, "so that we could split resources across them. I'm not sure we could have filmed it otherwise."



Graham Harper on set.

## BOSS DALEK



The Black Dalek was the first Dalek prop used in 2005's *Dalek*, repainted. "We got talking at the tone meeting," Russell T Davies said, "because I remembered, as a kid, how much I fixated on the slightest change in Dalek design. My god, when that Dalek Supreme landed in *Planet of the Daleks*, looking so different from the others, that was mind-blowing! I think Edward [Thomas, production designer] suggested black, and his whole team was dying to work on it." A mistake was made at the BAFTA TV awards ceremony on 7 May when the Black Dalek was used in the performance, almost two months before its surprise reveal in *Army of Ghosts*.





Rajesh asks why anyone would build the sphere and go into the Void. "To explore," the Doctor answers. "To escape. You could sit inside that thing, and an eternity would pass you by."

Under false pretenses, Adeola lures Matt into the out-of-bounds area. He is also claimed by the Cybermen.

Yvonne explains that the sphere entered the world recently and the ghosts followed in its wake. They have been getting warning signs for years about the dimensional rift, so they built Torchwood headquarters, also known as Canary Wharf Tower, around it to claim the entry area for themselves. The Doctor



tells Yvonne to stop draining energy from the rift – there is a danger that the entire world could be destroyed. He demonstrates by making a crack in the glass partition of Yvonne's office. "Sphere comes through. But when it made the hole, it cracked the world around it," he says. "The entire surface of this dimension splintered. And that's how the ghosts get through." The glass partition shatters. Yvonne decides to follow his advice and orders the rift to be closed.

Rose slips out of the TARDIS and grabs a white coat so she can move around unnoticed. She finds herself in the sphere chamber. She shows Rajesh the psychic paper, but he isn't fooled by it. He arrests her. Rose is surprised to find that her old boyfriend, Mickey Smith, is working undercover in the chamber.

Adeola, Matt and Gareth override the dimensional rift controls. The two switches begin to move. The Doctor uses his sonic screwdriver to deactivate Adeola's earpieces. She and the others scream and die as the control is broken.

Rajesh is shocked as the sphere suddenly becomes active: it begins to hum and shift, exhibiting weight and mass. The chamber doors seal automatically, locking everyone inside. Mickey tells Rose not to worry – he's ready for the Cybermen. They escaped the parallel Earth where they were created, but the resistance found a way to follow them. Mickey believes that the leader of the Cybermen is inside the sphere. He pulls a large gun out of a hiding place.



The Doctor, Yvonne and two soldiers explore the out-of-bounds area. They are captured by Cybermen. The ghosts appear all around the world again but this time solidify into millions of Cybermen. The Doctor is surprised to learn that the Cybermen didn't build the sphere – they simply followed its path into this dimension. "Then what's inside it?" the Doctor asks...

In the chamber, Rose, Mickey and Rajesh look up in horror as four Daleks emerge from the sphere. "Lifeforms detected!" they cry. "Exterminate! Exterminate!"



## TRACY-ANN OBERMAN

Tracy-Ann Oberman played Yvonne Hartman: "I've always been a *Doctor Who* fan. Yeah, I was obsessed with it. I was very, very young but I remember the changeover from Jon Pertwee to Tom Baker, which was, for me, a seminal moment. I found it incredibly traumatic. I'd become attached to Pertwee, and Tom Baker seemed a bit frightening, like a mad uncle. I watched the first new [21st-century] *Doctor Who* with bated breath, thinking, 'Oh god, how are they going to mess this up?' But it exceeded all expectations. It's brilliant." Oberman found a kindred spirit in the show's star: "I'd known David Tennant for quite a while beforehand, and I knew what a huge fan he was, plus I was a huge fan, so we spent the whole time talking about *Doctor Who*! Also, I got on incredibly well with Camille Coduri [Jackie Tyler]. On the first day we completely bonded."







# BUILDING THE DALEKS - 2

**S**howrunner Russell T Davies made it clear from the beginning that he wanted no major changes to the classic Dalek design when they reappeared in the new series in 2005. “Honestly, try to design something that is still being made and popular and used and powerful and successful 45 years later,” he said in 2008. “They still work for a new generation, it’s not just nostalgia. I know that because you see kids clutching their Dalek toys. There’s something fundamentally brilliant about that design.”

The new generation of Dalek was shaped by *Doctor Who*’s production

designer Edward Thomas and concept artist Matthew Savage. “The first thing Ed Thomas gave me to work on was the Daleks,” Savage recalled in 2015. “I was overawed. I couldn’t believe he would give me that! With the Daleks it was a rejig as opposed to a new design. Partially the brief came from Ed, partially it came from Russell T Davies. Russell gave me a Dalek toy from *Genesis of the Daleks*. He said if you turned the lights off and silhouetted the Dalek, it kind of has to look the same. Because it’s perfect, it’s a piece of 1960s iconography. But within that silhouette there are proportions, movement, textures, detail, surface panelling. It was a wonderful thing to essentially draw Daleks for a month.”



Mike Tucker works on the Dalek.





Mike Tucker discusses the new Dalek prop with Dalek operator Barnaby Edwards.

A copper/bronze finish was chosen to give the Daleks a more solid, metallic feel. "Colour was very important. We've added elements that I really feel make them a lot more chunky," Thomas commented in 2005. "To make it look more powerful, make it look as if it's got a lot more attitude, it really needed to look like a metal piece of kit that could really do some harm. You've got to believe that this thing could take over the Earth very easily."

Large rivets were added to the vertical slats, giving an 'industrial' look to the Dalek. A strip with a line of Dalek symbols was placed beneath the eyestalk to indicate an individual serial number. The single biggest change was the addition of a 'hood' section that covered the area where the eyestalk connected to the dome.

The Dalek eyepiece was given a blue light and a contracting iris that echoed the one used by the original lead Dalek in their first 1963 story. The twin dome lights were also intended to be blue, but the director of *Dalek*, Joe Ahearne, requested that they be left clear to avoid comparisons with a police car.

For the first time, movement of the dome, eyestalk, eyelight and dome lights was remote-controlled by an off-camera technician. This left the Dalek operator to deal with the general movement of the prop, sucker arm and gunstick.

Mike Tucker oversaw the construction of the new Daleks. He began his career as a visual effects designer in 1982 and worked on Seasons 23–26 of the original *Doctor Who* series, including the construction of the Time Lord space

station model in *The Trial of a Time Lord*. A *Doctor Who* fan since childhood, Tucker has contributed in many different ways to *Doctor Who*, including writing original novels and audio adventures. He is one of only a handful of people on the production team to have worked on both *Doctor Who* in the 20th century and the revived show in the 21st century.

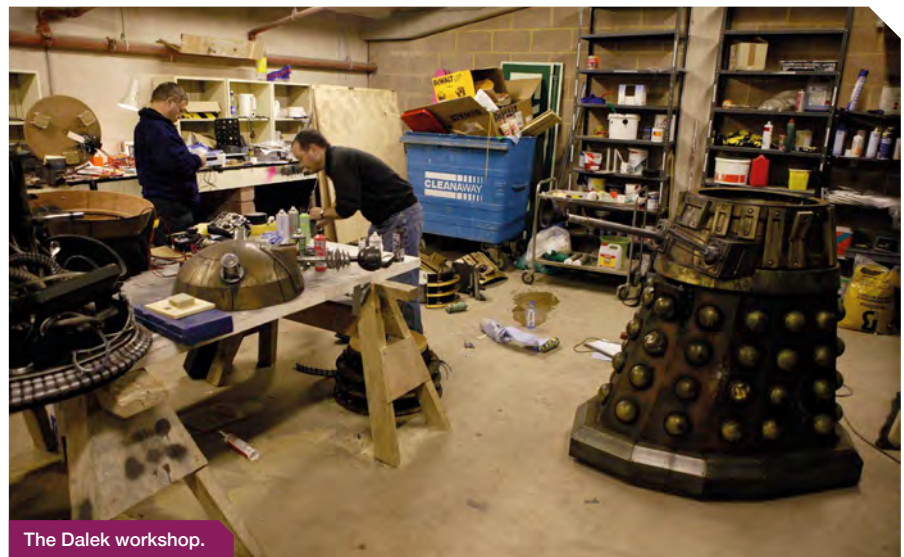
"The meeting to discuss the construction of the 21st-century Daleks took place in the BBC Model Unit workshop on London's Kendal Avenue in September 2004," Tucker recalled in 2013. "I half-expected a radical redesign along the lines of the Spider Daleks that had been suggested for the American TV movie starring Paul McGann, and so was pleasantly surprised when the production team went down a more traditional route. The brief that my team was given was to make the Dalek silhouette identical to the 1960s original but to build the prop using all

the modern materials and paint finishes available to us," Tucker explained.

"With a limited timeframe before principal photography – and working on the basis of not trying to reinvent the wheel – I utilised the base sections of two existing Dalek props that had been built for use on the convention circuit. That aspect of the design had remained identical to what had gone before, so this gave us a good head start and allowed more time to concentrate on the sections that required restyling.

"The shoulders, neck and head were built up from scratch, using the art department designs as a starting point but modifying shapes as we went along in order to maintain the silhouette that Russell wanted. Conscious that the general public's view of the Daleks has always been that they were constructed from 'chicken wire, egg whisks and sink plungers', I tried wherever possible to manufacture parts in the workshop, rather than relying on readily available materials. In the end, the only parts that were 'off the shelf' were the ear lights and an industrial anti-slip matting that formed the mesh in the neck section for the operator to see through."

Building the first Dalek of the 21st century was a very satisfying job for Tucker: "I had always regretted missing out on working on a Dalek story during my time on the series in the 1980s, and remember being envious of colleagues who were given the task of building the new props for *Remembrance of the Daleks*. This then was the realisation of a childhood ambition, not just for me but for several other members of my team."



The Dalek workshop.



# SKIRT SECTION

## BASE FRAME ASSEMBLY

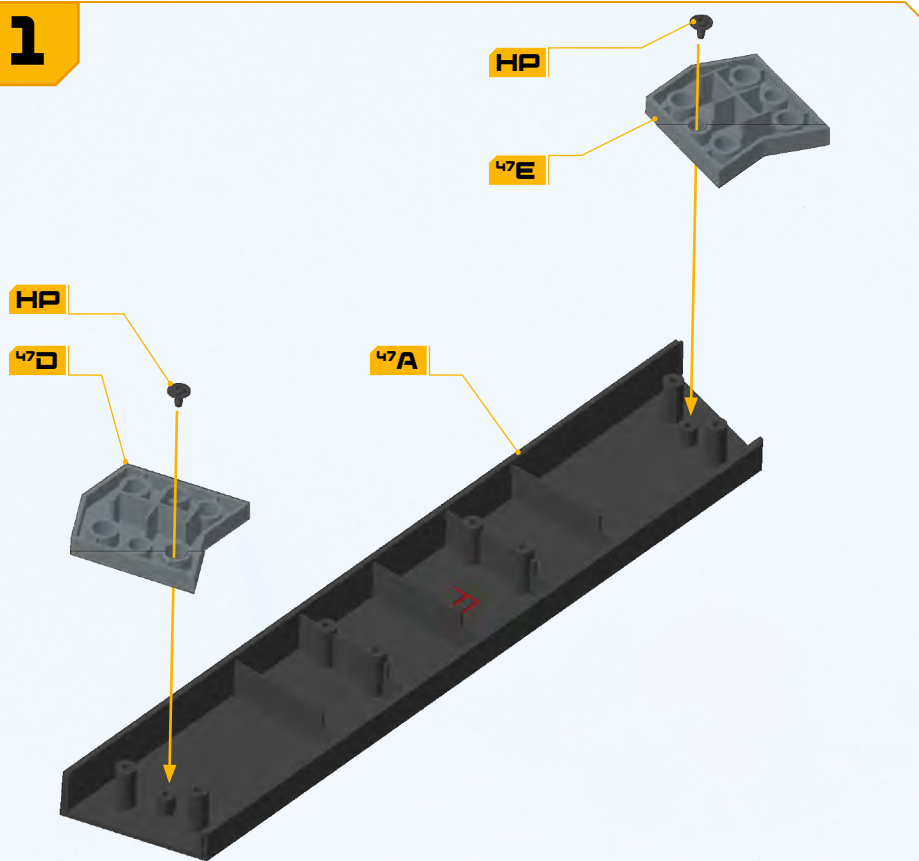


### COMPONENTS OF ISSUE 47

47A	BASE FRAME (F)	47C	BASE FRAME CONNECTOR (C)	47E	BASE FRAME CONNECTOR (F)
47B	BASE FRAME (E)	47D	BASE FRAME CONNECTOR (E)	HP	SEVEN 2.6 X 6 PWB SCREWS (1 SPARE)



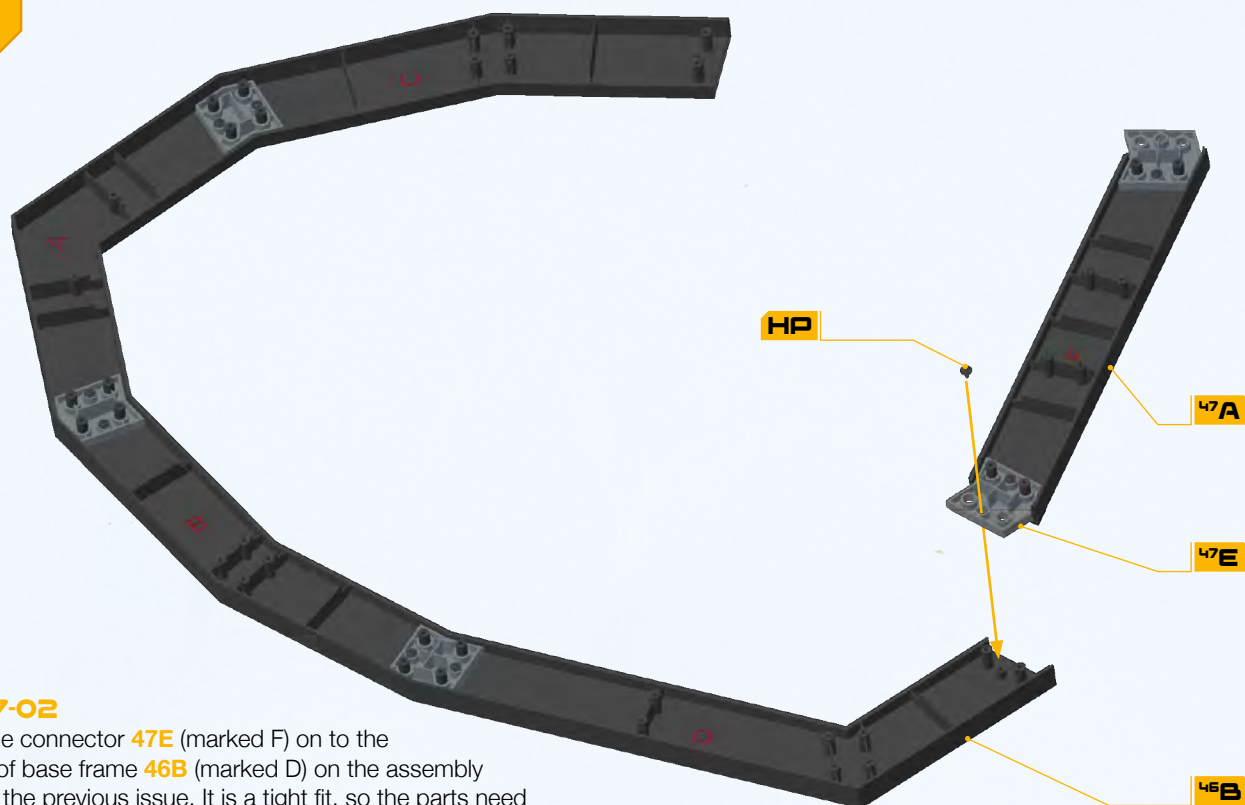
# 1



## #47-01

Take the base frame **47A** (marked F) and the connectors **47D** (marked E) and **47E** (marked F). Fit the screw holes in parts **47D** and **47E** over the raised screw sockets at each end of part **47A**. Fix each connector in place with an **HP** screw.

# 2

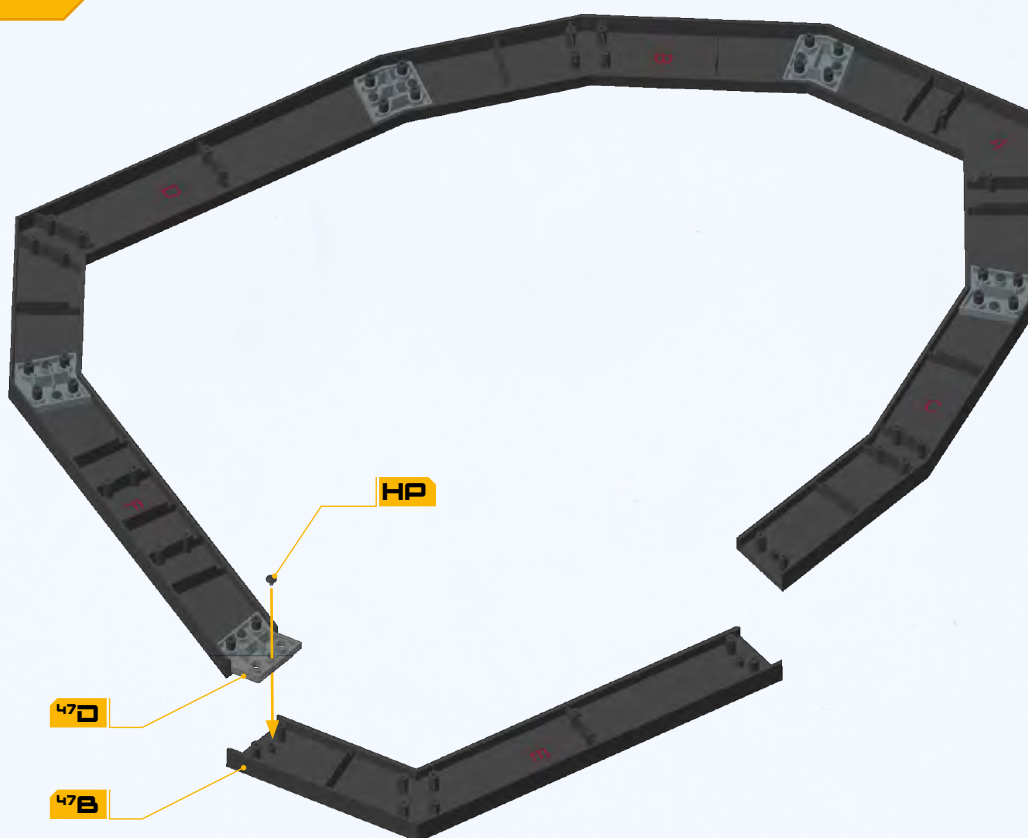


## #47-02

Fit the connector **47E** (marked F) on to the end of base frame **46B** (marked D) on the assembly from the previous issue. It is a tight fit, so the parts need to be at the correct angle. Fix in place with an **HP** screw.



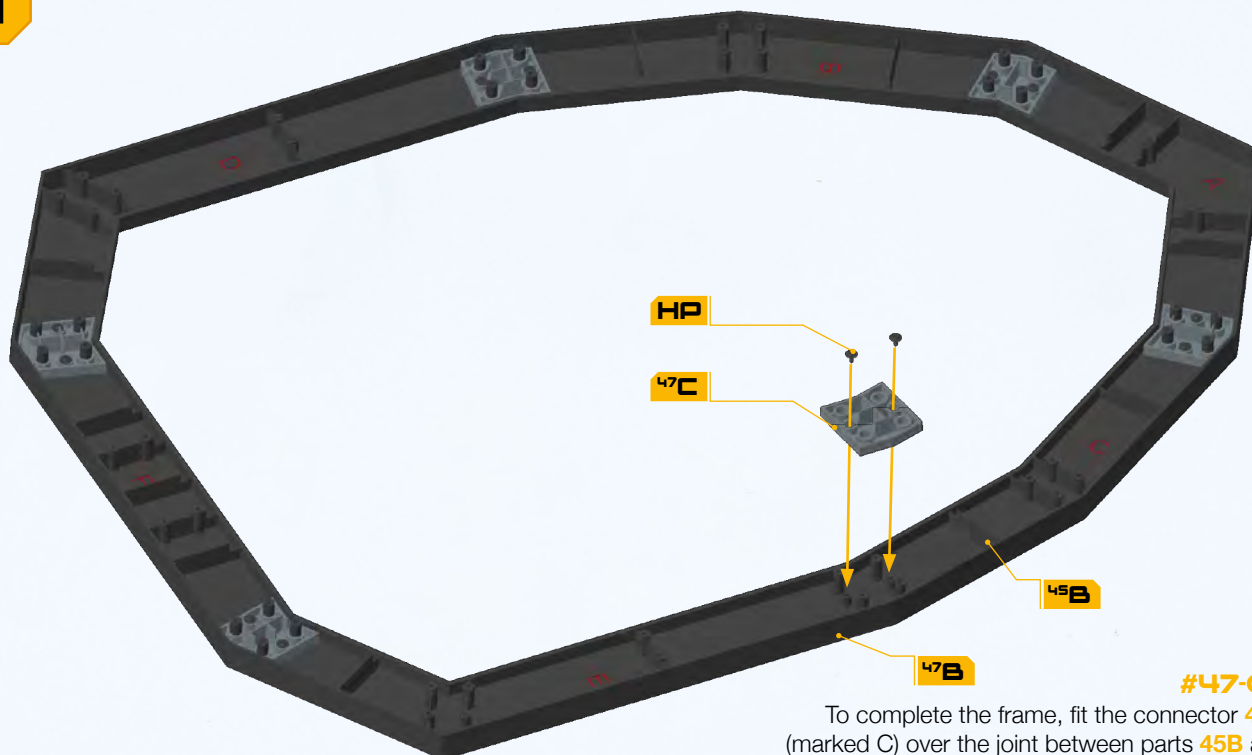
3



### #47-03

Take the base frame **47B** (marked E) and fit the screw holes in the connector **47D** (marked E) over the raised screw sockets at the end of part **47B**. Fix in place with an **HP** screw.

4



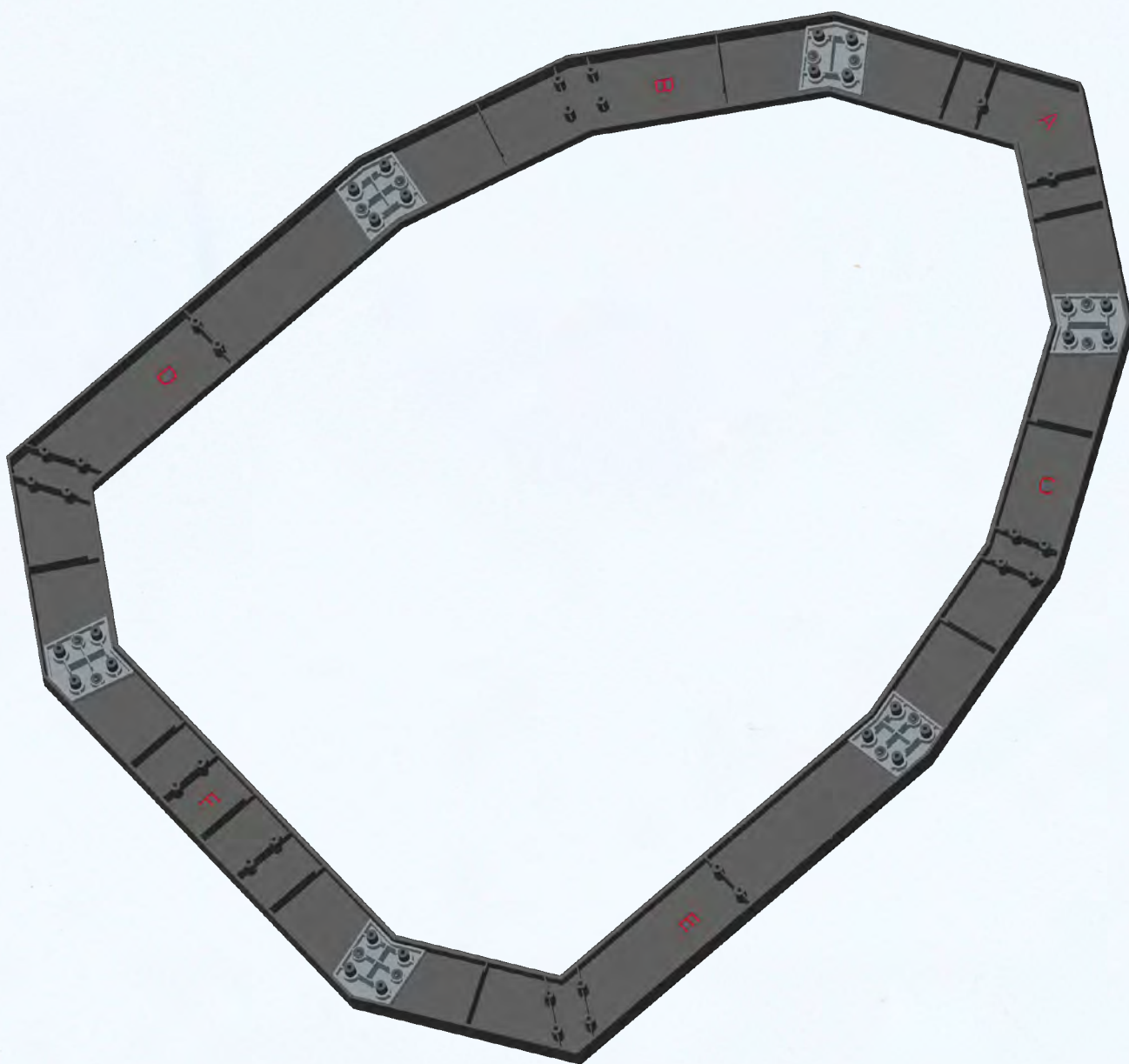
### #47-04

To complete the frame, fit the connector **47C** (marked C) over the joint between parts **45B** and **47B**. Fix in place with an HP screw on each side.



**#47-COMPLETED WORK**

The base frame has been completed.





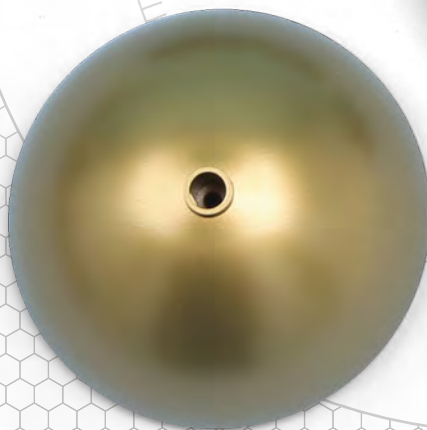
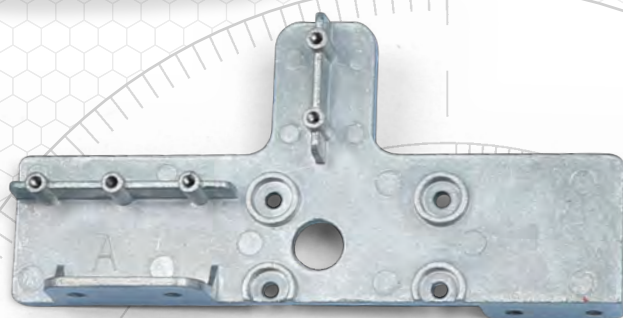
# THE DALEK



COMING IN  
ISSUE 48

## BUILD PART 48

Now you can begin to collect the roller parts as the next issue components include a two-part roller, a motor holder and the fixing screws.



## THE TIME VORTEX



Davros awakens to discover he is on trial for his crimes.

## ADVENTURES IN TIME AND SPACE



A trap awaits the Doctor in  
*Revelation of the Daleks* – Part 1

Every week at your newsagent! Visit [hachettepartworks.com/Dalek](http://hachettepartworks.com/Dalek)