BUILD THE

BACK TO THE FUTURE™ DELOREAN

ISSUE 37









FANHOME

BUILD THE ICONIC 80s TIME MACHINE IN 1:8 SCALE

UNIVERSAL

BUILD THE

BACK TO THE FUTURE™ DELOREAN

ISSUE 37





CONTENTS

4 **DRIVE TIME**
Add the rear left and right wheel arches to your DeLorean, using the step-by-step guide.

6 **MOTION CONTROL**
How a pioneering special effects technique was used to 'double up' characters for *Back to the Future Part II.*

10 **A TIME TRAVELLER'S GUIDE**
Talented actor/musician Harry Waters Jr played Marvin Berry in *Back to the Future Parts I & II.*

© 2023 Universal City Studios LLC and Amblin Entertainment, Inc. All Rights Reserved.
© 2023 DeAgostini Publishing, S.p.A. All Rights Reserved.

Creative Director: Maggie Calmels
Managing Editor: Ben Robinson
Art Editor: James King
Writer: Kieran Grant

ISSN: 2057-357X
Printed in Italy/Czech Republic

The price of this issue includes the magazine and the attached pieces for model assembly.

UNITED KINGDOM
Published by DeAgostini UK Ltd c/o Royds Withy King, 69 Carter Lane, London EC4V 5EQ.

UNITED STATES
Published by DeAgostini Publishing USA, Inc. 299 Park Avenue, New York,New York 10171.

TO OUR READERS
The publisher reserves the right to modify any components as required during the course of the collection. Not suitable for children under the age of 14 (12 in the USA). This product is not a toy and is not designed or intended for use in play. The collection is complete in 158 issues. Items may vary from those shown.

WARNING
Any reproduction, even partial, of the contents of the magazine is prohibited without permission from the Publisher. The model and the magazine that accompanies it are strictly for private use, and within the family, in accordance with Article L122 - 5 10 of the Code of Intellectual Property. Any reproduction other than that provided for in Article L122 - 5 20 of the Intellectual Property Code is prohibited. The magazine and/or elements of the collection may not be distributed, loaned, resold, rented or exploited for commercial purposes. All rights reserved.


6


10



YOUR CAR PARTS

With this issue you receive the rear wheel arches and fixing screws for your DeLorean model.

37A LEFT REAR WHEEL ARCH



37B RIGHT REAR WHEEL ARCH



DM 10 X SCREW



CUSTOMER SERVICES

UK
Email customer.service@deagostini.co.uk

USA
Email support@usa.deagostini.com



More information
at **fanhome.com**

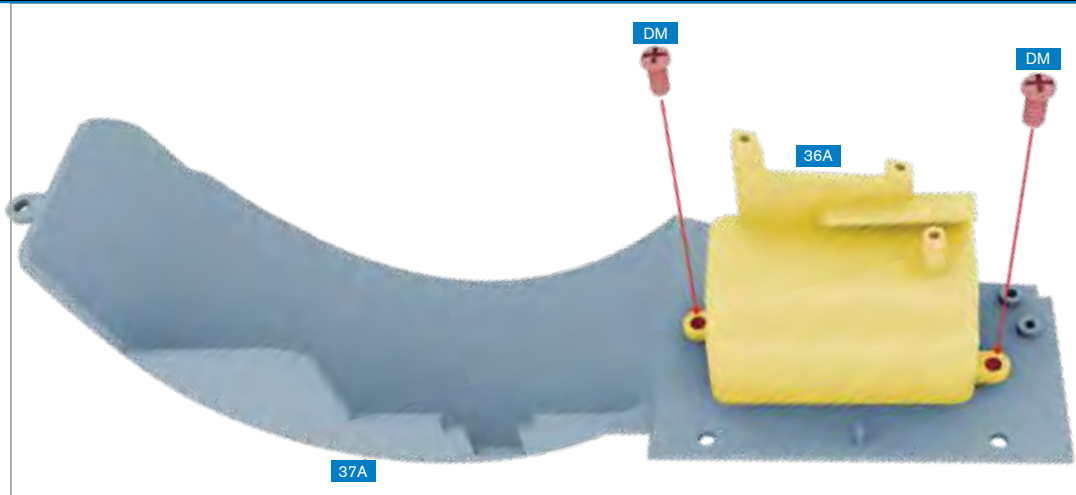
DRIVE TIME

Continuing the chassis assembly for your DeLorean.

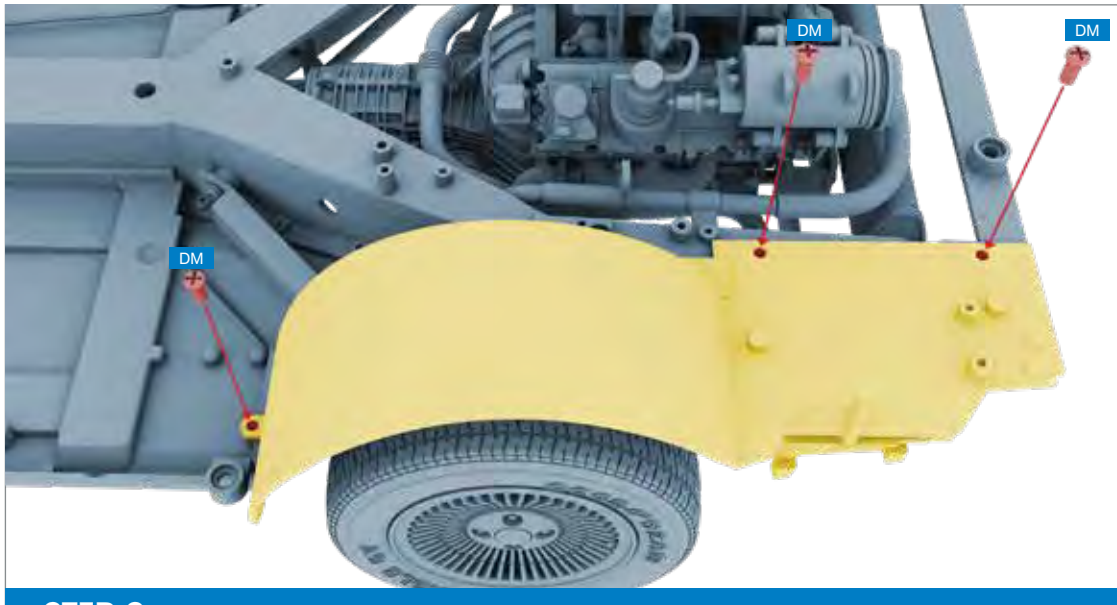
In this issue you will fit the pontoons and rear wheel arches to the chassis by following these step-by-step instructions.



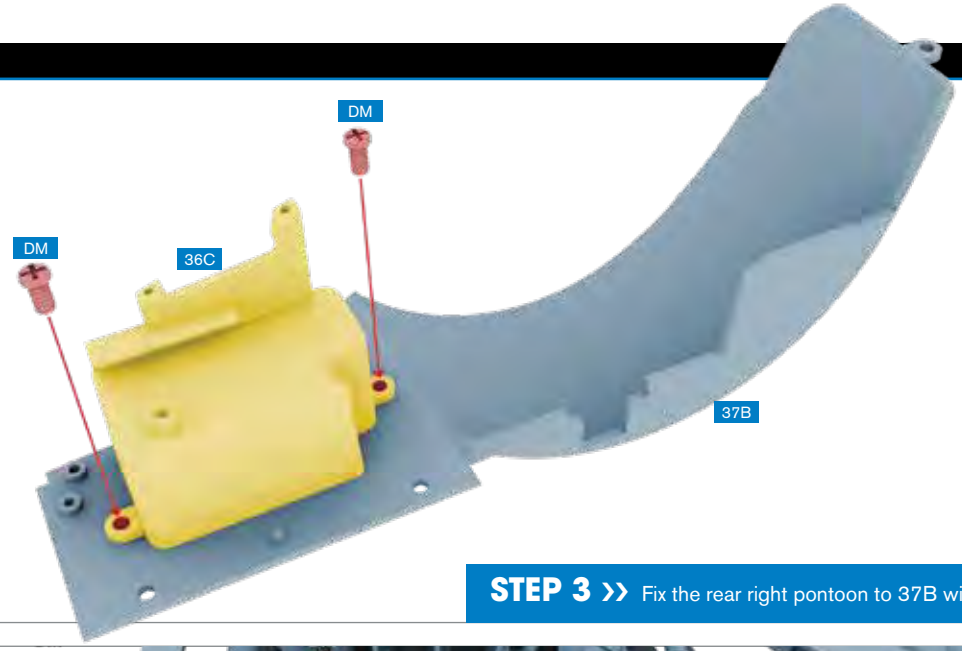
FITTING THE PONTOONS AND WHEEL ARCHES



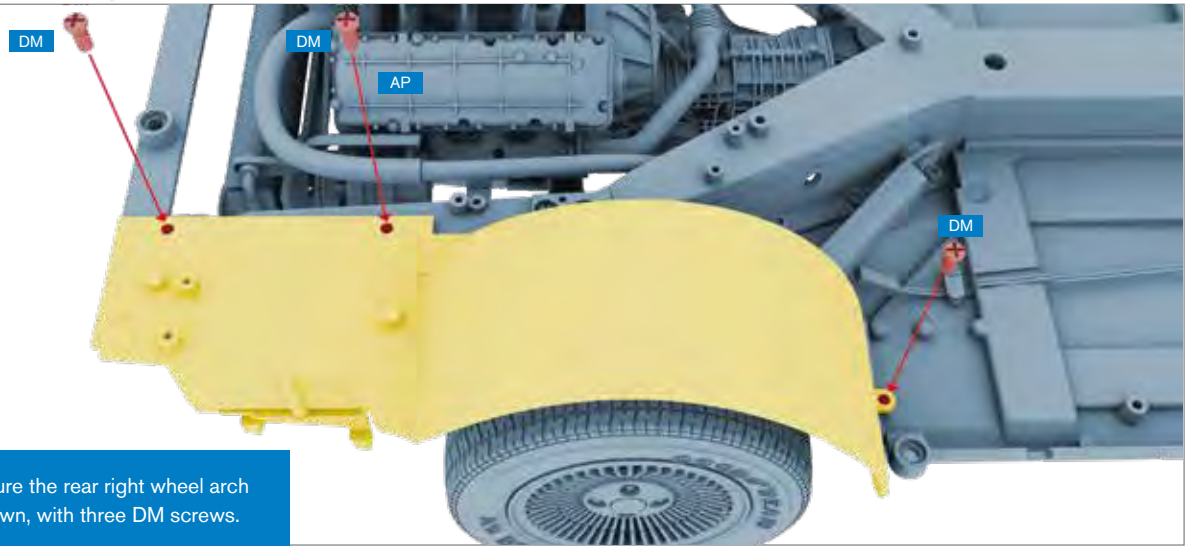
STEP 1 ›› Secure the left pontoon (Stage 36) to the underside of 37A with two DM screws.



STEP 2 ›› Place the left rear wheel arch onto the chassis, as shown, and then secure with three DM screws.

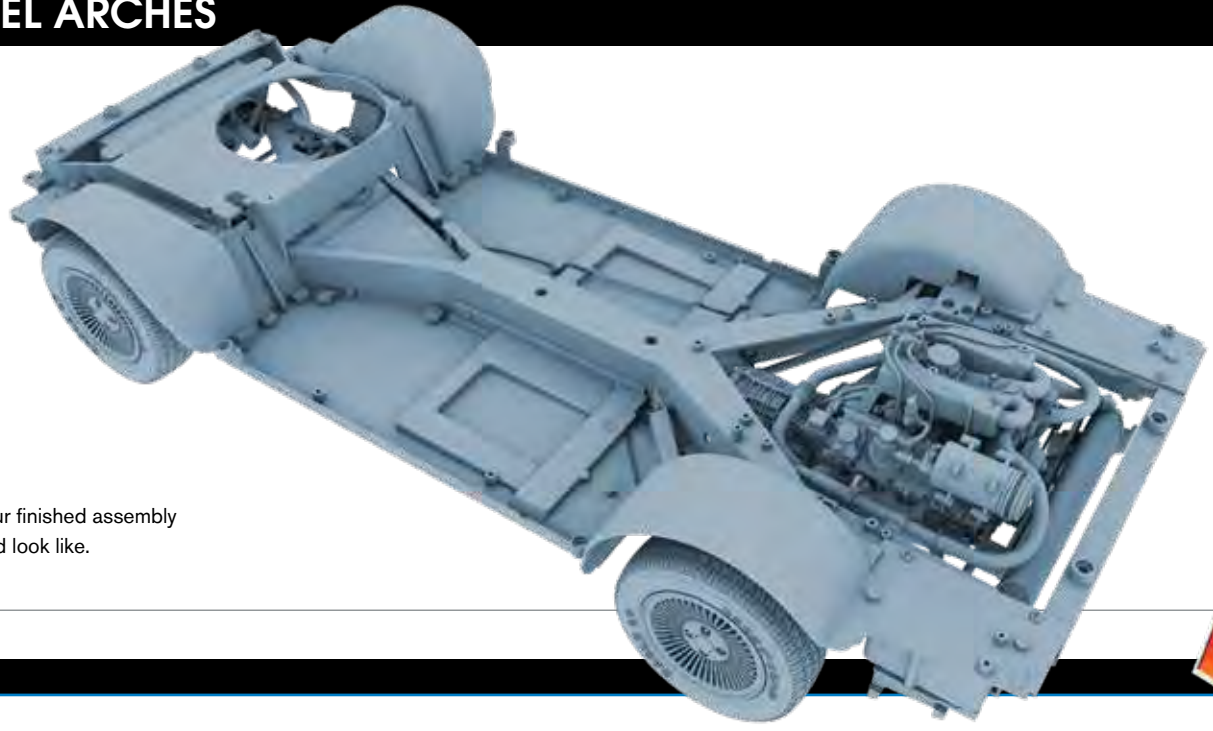


STEP 3 » Fix the rear right pontoon to 37B with two DM screws.



STEP 4 » Secure the rear right wheel arch to the chassis, as shown, with three DM screws.

THE WHEEL ARCHES



This is what your finished assembly should look like.

MULTIPLICATION AND MOTION CONTROL

THE TONDREAU SYSTEM

A remarkable piece of camera equipment was used to 'double up' characters in Back to the Future Part II.



© Universal/REX/Shutterstock

MARTY MULTIPLIED
Marty returns to the Enchantment Under the Sea dance in Back to the Future Part II.

For *Back to the Future,* director Robert Zemeckis and cinematographer Dean Cundey used a number of pioneering new camera techniques. "One of the greatest rewards of working with Bob Zemeckis is that you know you are going on a new adventure," Cundey told Pauline Rogers in *Contemporary Cinematographers and their Art*. "He isn't satisfied with doing the ordinary or the obvious. He loves to try new storytelling techniques, equipment and ideas, he loves to move the camera, to make the audience a participant. On *Back to the Future* we first used a remote head for the camera on a crane arm. It became a standard tool for us. It puts the camera on a remote controlled servo motor head on the end of an arm about 20 feet long. You can take the audience from floor level with the feet of an actor to high overhead, two floors up the back down into a hole in the street or any other strange place the director wants. It can be every bit as useful as the Steadicam if you are creative enough to know how to use it." The crane camera was put to virtuoso use in the filming of the Enchantment Under the Sea Dance, when the viewer is carried through the dancing students to the stage. For *Back to the Future Part II*, Zemeckis required the cameras to perform the same movements, while adding an extra dimension of special effects.

NO DEVIATION

The solution was a motion-controlled camera which could replicate the same movements many times without deviation. In 1985, technician Bill

> **"Bob loves to move the camera, to make the audience a participant."**
>
> DEAN CUNDEY, CINEMATOGRAPHER



© Universal/REX/Shutterstock



BIFF DOUBLED
Thomas Wilson endured a gruelling time as a 'technological marionette' filming Back to the Future Part II.

Tondreau, who had worked on the groundbreaking science fiction adventure *TRON* for Disney, brought a remarkable piece of technology to effects house Industrial Light & Magic.

NEW SYSTEM

He had created an attachment that enabled an operator to follow the camera's movements, seen through the camera, on a video screen. He could control the camera's movements via a set of wheels. The movements were tracked electronically and stored into a computer. This allowed the split screen process to be used on a dynamic moving shot, where previously, it required the camera to be locked in one position. Robert Zemeckis first encountered the Tondreau system when filming *Who Framed Roger Rabbit?* with Dean Cundey and was quick to see new applications and opportunities for fun in the Marty McFly story.

BILL TONDREAU

● At the start of his career, Bill Tondreau worked with designer Charles Eames after answering a newspaper advertisement for a photographer at Eames' studio. "Charles trusted his instincts and hired me on the spot," Tondreau explained. "It turned out to be a great decision for both of us." Eames gave Tondreau one of the first IBM desktop computers with instructions to spend the next four months learning what it could do. Tondreau taught himself program writing and computer-aided design.

● The Tondreau system is now used with hundreds of different camera systems – some of them are manufactured but many are improvised, as Tondreau explains. "The majority of them are made by the individual operators actually using them. Some people do great things with junk, and some people go very high tech. My sympathies tend to be with the junkers."



© Universal/Courtesy Everett Collection/Mary Evans

FILMING
Christopher Lloyd and Michael J Fox face a conventional camera set-up to film an early scene for Back to the Future Part II.

"The VistaVision cameras we used for *Roger Rabbit* had been completely redesigned and rebuilt to do more than just matte work," Cundey explained. "The split screen process used to double up an actor hadn't changed much since it was developed in the 1930s. Now, using the computer, we could follow the action in the frame with one image on one side of the split, then duplicate it with the same actor on the other side of the split. We even took it a step further with having actors cross each other within the frame. The idea was to shoot clean computer-controlled shots, and give the optical house the pieces to lay together."

MUCKING AROUND

Surprisingly, Bill Tondreau, the creator of the complex motion control system, had no formal training in either electronics or computers. "I learned it all with trips to Radio Shack and back issues of *Popular Electronics* at the Santa Monica library," he admitted, modestly. "When I realized I needed to do something I didn't understand, I'd muck around at the library until I found a way to do it." He took his inspiration from *Star Wars*, the film that had caused a giant leap in cinema effects, the film for which Industrial Light & Magic had been created in 1975, and the film that used motion-controlled cameras for the first time.

POWERFUL TECH

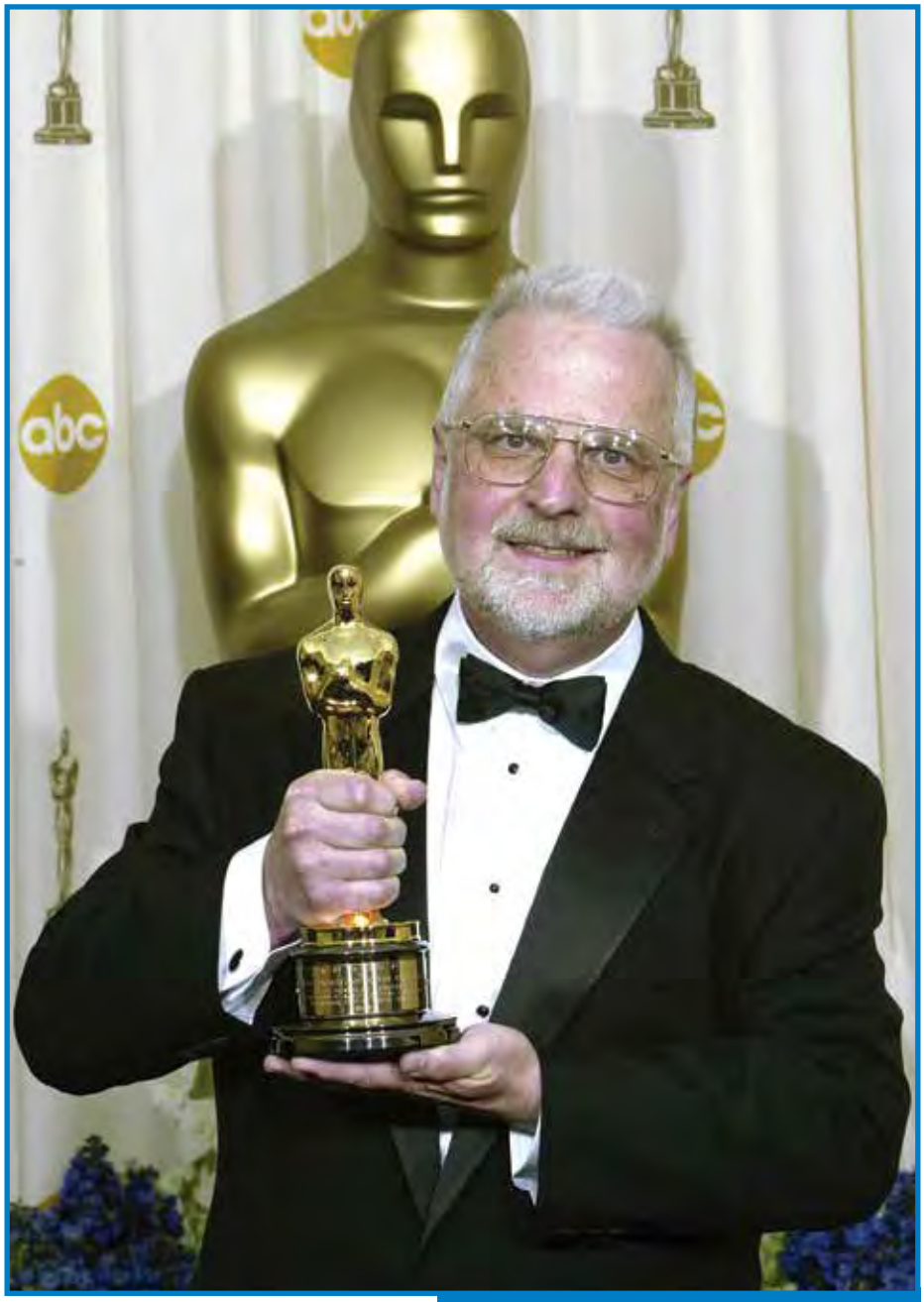
Though computer technology in the early 1980s was extremely crude, Tondreau knew that it was without question the way forward for special

> **"I learned it all with trips to Radio Shack and back issues of Popular Electronics"**
>
> BILL TONDREAU

effects. “At the time of *Star Wars*,” he explained, “the earliest, crummiest, crudest personal computers were starting to come out. I saw that this technology was going to be a powerful thing to harness, so I really got into it. I’m not good with ideas in the abstract, so influenced by the motion control work in *Star Wars* I developed computer technology thinking how I could use it for theatrical motion control. Then I built all these primitive systems in my little $120-a-month apartment.”

OSCAR-WORTHY

The ‘primitive systems’ grew and grew. ILM took up Tondreau’s work and adapted it for their needs, developing the VistaGlide motion-controlled dolly system which was specially built for *Back to the Future Parts II* and *III*. “You would start something on one film and push it a little farther along with every succeeding project,” Dean Cundey remembered. Tondreau was given a special Oscar in the Scientific and Technical category in 2004 for his work in developing motion-control technology. He estimates that the system is now used in 90% of Hollywood films that feature special effects.



© Bobby Bank/Getty Images

OSCAR WINNER

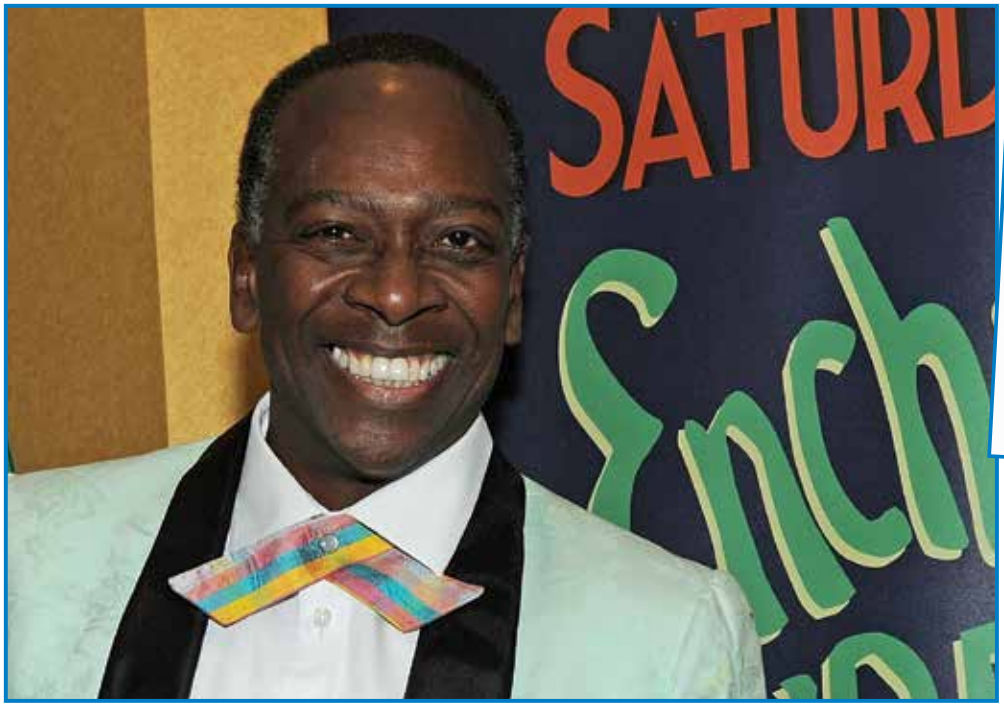
Bill Tondreau was given an Academy Award in the Scientific and Technical category in 2004 for his work with motion-controlled cameras. He still works with photography, producing panoramic prints of Albuquerque landscapes.

PRECISE PERFORMANCE

For all the technological achievements of the Tondreau system, it is worth sparing a thought for the actors having to perform in the midst of it all, repeating lines and movements precisely to synchronise with the movements of the camera. Thomas Wilson endured one particularly gruelling day with the Tondreau as he filmed the scene where Biff from 2015 gives the Sports Almanac to his younger self in 1955.

First, he filmed his scenes as 2015 Biff in heavy old-age make-up, then he painfully had the latex stripped off to film the scenes as young Biff. He wore a radio earpiece so he could hear instructions from the director and a playback of the dialogue he had recorded earlier. He recalled, “Due to the demand for utter vocal and physical precision by the Tondreau camera, by the end of the 16 hour day, I felt like a technological marionette. It was the hardest work of my life and the biggest challenge to my capacity for concentration.”

Wilson wasn't alone in his labours – Michael J Fox also had to perform in several different guises for multiple passes in front of the Tondreau, which we will look at next issue... ■ TO BE CONTINUED....



© Jeff Haynes/AFP/Getty Images



© Michael Ochs Archives/Getty Images

Left: Waters took part in a recreation of the Enchantment Under the Sea Dance at the New Jersey Horror Con in March 2017, and is seen above in a 1980s publicity photo.

HARRY WATERS JR

MARVIN BERRY

As the lead singer of the Starlighters, Harry Waters Jr created a memorable character.

In 1983, actor and musician Harry Waters Jr came to Los Angeles after working in theatres on and off Broadway in New York and was cast in a number of television comedies.

In late 1984, he auditioned for the role of Marvin Berry in *Back to the Future*, got a callback to meet director Robert Zemeckis, and then, on New Year's Eve, was told that he had won the role.

As lead singer of the Starlighters, the musicians at the Enchantment Under the Sea dance, Marvin is a small but memorable role in a film full of larger-than-life characters. He sings 'Earth Angel' while George and Lorraine share their first kiss, and he gets one of the movie's best-remembered gags – as the (fictional) 'cousin' of Chuck Berry, he telephones the musician while Marty is playing 'Johnny B Goode', saying "You know that new sound you were looking for? Well, listen to this!" Waters did the famous line in one take.

Later, Waters won a gold disc for his participation in the film's soundtrack, and was delighted to reprise the role, along with all of his original bandmates in *Back to the Future Part II* in 1989.

As part of the *Back to the Future* family, Waters continues to make appearances and give an encore of 'Earth Angel' at conventions all over the world, "It's priceless," the actor says, "that something I did is so meaningful to people." ■

> **"You know that new sound you were looking for?"**
>
> MARVIN

QUICK FACTS!

KEPT BUSY

Waters was a member of the Frank Silvera Workshop in Harlem, which championed the work of new African American playwrights, directors, designers and actors.
In 1986, Waters had a regular role in the sitcom *What A Country!* about a group of immigrants who are trying to pass the US citizenship test, and in 1991 he created the role of Belize on stage in *Angels in America*. Recently, he has taught acting and script development, and has directed numerous productions. He is also a professor in the Theatre Department at Macalester College, in St Paul, Minnesota.

NEXT ISSUE...

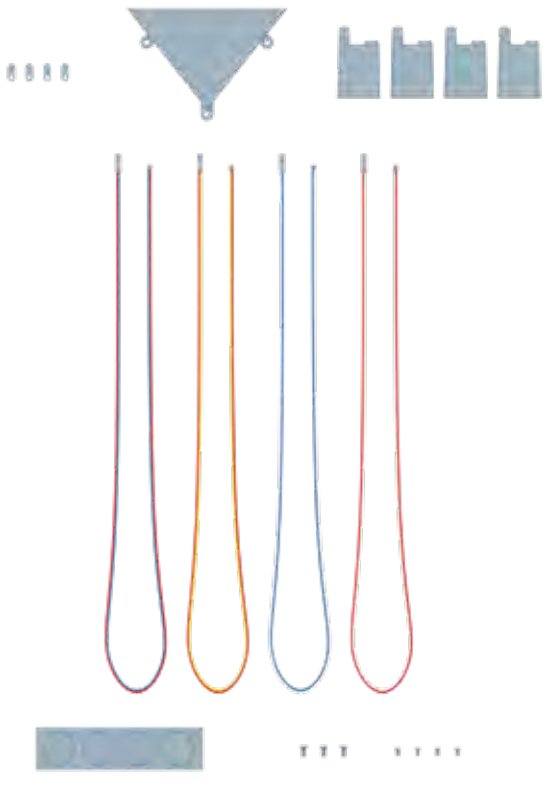
WIRING

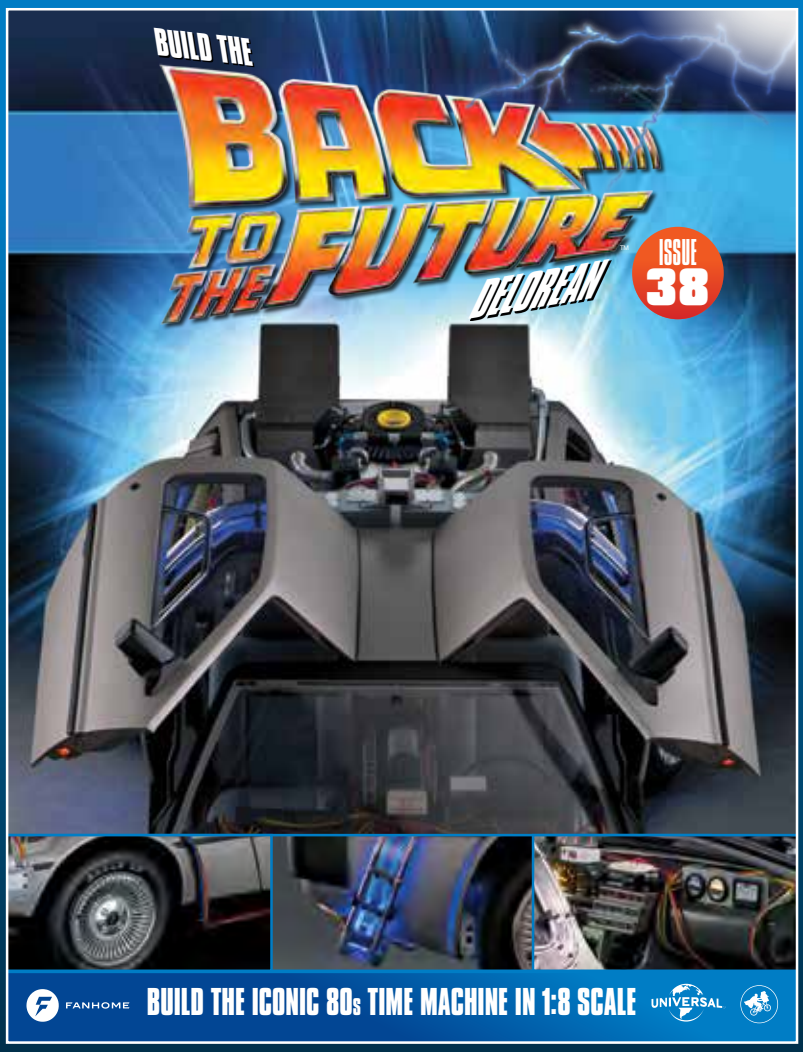
Add wires to the chassis of your DeLorean model.

In the next issue you'll receive the left rear fender for your DeLorean, plus detailed step-by-step instructions telling you how to assemble it.

YOUR CAR PARTS...

WIRING





THE MANY FACES OF MARTY

How Michael J Fox played three different members of the McFly family in *Back to the Future Part II!*

PICTURE CREDITS: All photos © Universal except where stated.

BUILD THE

BACK TO THE FUTURE™ DELOREAN

FANHOME

UNIVERSAL

F230FSC037