





Go on a journey to become a better builder





# To Build LEGO® Cars

How





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Wide rear spoiler

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![](_page_3_Picture_4.jpeg)

RACING CAR, PAGE 42

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I hope you enjoy my designs!

#### **MEET THE BUILDER**

Nate Dias designed and created all of the cars in this book. He is a science teacher by day and a LEGO master builder by night! He won the first-ever series of the TV show LEGO® *MASTERS* in the UK.

When did you first start building? When I was five years old. I stopped building for a while at the age of 12, then started again at university thanks to one of my lecturers.

What's your favourite LEGO® piece? Hove the 1x2 plate because it's the smallest element that you can use to build in more than one direction. For this book, my most useful piece was the 2x2x2/3 plate with two side studs. See if you can spot it!

Which car in this book would you most like to drive? The gingerbread car is fun, but I might be too tempted to eat it! It has to be the underwater car. I could show my son, Ned, some awesome sights.

84

86

**Displaying your cars** Cloud car Hot rod Making roads

Pirate car

Yellow taxi

Street furniture

**Gingerbread** car

Camper van

Around the town

Ice-cream van

Royal car

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82 4 6			Opening rear door or "tailgate"
	PICK-UP 1 PAGE 50	RUCK,	

## **HOW TO BEGIN**

his book is all about building LEGO® cars, from their chassis to their bumpers to their roofs. Some are practical family cars, while others are speedy solo racers. There's an almighty monster truck, a space-ready moon buggy, a stretch limousine, and even a flying car. The cars start off easy and become harder as you move through the book, making it one imaginative building journey. Are you ready to begin?

#### **BREAKING DOWN** BUILDING

Each car is broken down into three to five important building stages. You might not have all the bricks you need, but you don't have to copy the models brick by brick. The breakdowns show techniques to inspire your own amazing ideas. There are also "ideas galleries" that focus on particular parts of cars, such as the chassis and engine, and ways to expand your builds.

### The first picture is always the finished model CING CAR READY, SET, RACI

CAR MODEL

Smaller parts of car models or extra build ideas

IDEAS GALLERY

If you'd like to see all of the bricks used in a particular car model, go to www.dk.com/legocars

![](_page_5_Picture_12.jpeg)

The last step is one of the final stages

![](_page_5_Picture_13.jpeg)

Each model is classed as easy, medium, or hard

#### HOW TO BEGIN

### **TECHNICAL TIPS**

These notes for builders will help you to understand some of the LEGO words and terms that are used a lot in this book.

Always put the wheels on last, so your car doesn't roll away!

#### **LEGO® DICTIONARY**

![](_page_6_Picture_5.jpeg)

1x2 brick

2x3 brick

**Bricks** are found in most LEGO models. They are named according to how many studs they have on top.

![](_page_6_Picture_8.jpeg)

1x3 plate

**Studs** are the round, raised

**Plates** are similar to bricks because they have studs on top and tubes on the bottom, but they are much thinner.

![](_page_6_Picture_10.jpeg)

**Tiles** are thin, like plates, but they have no studs on top.

1x2 brick with LEGO® Technic hole

**Holes** inside bricks and other pieces can hold connectors such as pins, bars, and axles.

WAYS TO BUILD

#### Upwards

The "easy" cars in this book mostly show pieces stacked on top of each other like this. Plates with clips attach to bars

All around Build moving parts or interesting shapes into your cars using hinged pieces or clips and bars.

1x1 brick with side stud

![](_page_6_Picture_20.jpeg)

### Downwards

Thin plate holds

the wheels

The wheels on cars are often attached underneath a car's body.

#### Sideways More advan

More advanced models use a lot of pieces with studs on their sides for building sideways.

#### WAYS TO SCALE

#### **Minifigure size**

If you want minifigures to drive or ride in your car, think about how wide or tall your minifigures are and how much leg and headroom they will need inside.

#### Minus the minifigures

If you're happy to imagine your passengers inside, you could build cars of any size without leaving space for minifigures. Microscale

Create a tiny traffic jam by building in microscale. Cars like this use small pieces in inventive ways.

![](_page_6_Picture_32.jpeg)

## **OFF-ROADER**

This classic off-road vehicle is a tough set of wheels, but it isn't tough to make. Built for adventure, it has four equally powerful wheels with heavy-tread tyres that can navigate deep mud, steep hills, and uneven stud roads with ease.

1x4 tiles in a row create a smooth, boxy roof

Grey plates for the metallic front grille

Wheel with offset treads

See how to build this car's chassis on page 10 /

> Buckle up, Rolo! This may be a rough ride.

l love a woof ride!

![](_page_8_Picture_1.jpeg)

### **ROCKET CAR**

*But my book isn't due back* 

until Tuesday.

Lever pieces are joysticks for steering

This is a car that will never be caught in traffic. At the slightest sign of a jam, it can engage its rocket engines and propel itself through the skies and beyond. The rocket car's nose cone and small, curved wings or "fins" give it a pointed shape that allows it to blast off in seconds.

l've travelled through 20 galaxies, tracking you down. Now pay your library fine!

Flaming rocket engine

Two 1x1 slopes make the windscreen

> Slope with slots forms the front of the fin

Nose cone is a 2x2x2 cone with an open stud

![](_page_10_Picture_1.jpeg)

with wheel holder

Tiny pulley wheel piece Skateboard wheels attaches sideways at the front, while the top fin fits onto a jumper plate's stud.

![](_page_10_Picture_6.jpeg)

### CHASSIS

A chassis is the frame that supports the body of a vehicle, so it's the best place to begin any car model. There are lots of ready-made LEGO® chassis frames to build your car designs around, but it's just as much fun to create your own.

### CHASSIS PIECE

This black cab uses a chassis piece with a recessed centre. The stepped plates on its sides make it useful for building wider cars.

Built-in wheel axle pin

#### **ALL-IN-ONE CHASSIS**

This LEGO® Juniors chassis frame is a single piece. It has mudguards, wheel axle pins, and lots of side studs.

Stepped 1x4 plate chassis side

> Modified 2x4 brick with wheel axle pins

2x2 plate / with axle pins attaches below the 2x6 plate

### SIMPLE CHASSIS

The chassis on this jeep is made from just a few LEGO pieces: a narrow 2x6 plate and two smaller plates with axle pins for the wheels.

#### **IDEAS GALLERY**

![](_page_12_Picture_1.jpeg)

### DRAGSTER

Start your engines... This long, narrow car is designed to be first across the finish line on a drag racing circuit. It has a big engine and very light bodywork. A rear wing controls the amount of air or "drag" moving past it, allowing the dragster to reach incredibly fast speeds. Find more racetrack building ideas on pages 88-89

forms the top of the rear wing

A smooth 2x6 tile

Sometimes I drive it to the shops to get milk.

1x2 tile with handle headrest

> Pistol pieces are engine exhausts

Two 1x6 curved slopes create the front of the frame

Small, smooth tyres at the front

### LONG CHASSIS

A very fast car like the dragster needs a long and light chassis. This one is made from just one 2x16 plate. It can be seen from the outside of the car so it's in a colour that fits in with the colour scheme. Two different plates with wheel-holding pins fit underneath the long plate.

2x2 brick

2x16 plate chassis

2x2 plate with LEGO® Technic pins holds the bigger rear wheels

2x2 curved

slopes lock in the plate Leaving space above here allows the minifigure driver's

arms to fit in

2x2 plate with wheel-holding pins and hole

#### **SMOOTH CURVES**

Now the curvy bodywork of the dragster is taking shape, with a gently sloping front and rounded sides. Remember to leave a space inside that's big enough for a steering wheel and a daring driver.

1x2/1x2 bracket

5

1x3 plate

2x2 curved

slope

2x2 hinge plate attached to a

2x6 tile wing

hinge brick base

2x2 curved slope

#### WINGING IT

The rear wing is one tile held at an angle by a hinge plate and brick connection. The wing's "endplates", which help to control the air that

passes over the rear wing, are made from wedge plates and brackets. Add wheels and an engine, and this car is ready to race!

![](_page_14_Picture_17.jpeg)

The last race was so long, l played chess on my flag.

![](_page_14_Picture_19.jpeg)

Turn to pages 34-35 for enginebuilding ideas

1x2 steering wheel stand

## ANIMAL CARS

Turn your favourite furry or four-legged friends into the cutest cars! These animal automobiles all look very different, but they have the same basic chassis and bodywork design. Just build different faces and tail details at the front and rear to make all kinds of wildlife on wheels.

> Only an elephant car has its trunk at the front!

> > 4x1 double curved slope rear end

Curly monkey tail

3x3 corner plate elephant ear

![](_page_15_Picture_6.jpeg)

Jumper-plate monkey mouth

0

1x1 slopes make a shaggy lion's mane

2x6 plate fits neatly underneath The wheels will later fit here

#### **BASIC BODY**

The animal cars' bodies are all made from the same pieces. Their small chassis are built around 2x6 plates with six more plates on top: two regular 2x2 plates and four 2x2 plates with wheel-holding pins.

1x4 brick with four side studs 2x2 brick 1x2 brick with two side studs There's a 1x2 plate here now, too It's time to build the driver's cabin. The seat and steering wheel sit low within layers of plates, bricks, and panels. MAKING FACES 2x2 driving Attach all kinds of animal seat features to the side studs on the bodywork. This elephant has big ears and a trumpeting

trunk at the front, rounded

sides, and a swishing tail

at the back!

![](_page_16_Picture_6.jpeg)

Now there are lots of bricks on the plate chassis. Build in bricks with side studs on the front, back, and sides of the animal car body so that more pieces can be added sideways at the next stage.

### **COSY CABIN**

4x1 double curved slope

1x2 steering wheel stand

1x2x1 panels create space for minifigure arms

> Small wheels are now attached to the pins

This 4x4 plate attaches to the body

1x1 round plate with open stud

> 1x3x2 arch brick trunk

Horn piece tusk

1x1 tile eye

2x2 curved slopes attached to plates

![](_page_16_Picture_21.jpeg)

The back part is built around a 2x4 plate

![](_page_16_Picture_23.jpeg)

### BUMPERS AND MIRRORS

Large engine grille made from four vertical grille tiles

Make your car models look more realistic by adding practical details to their exteriors. Build in mirrors so minifigure drivers can see the road around them, and bumpers to protect your creations from bumps and collisions.

#### **BACK BUMPERS**

Back bumpers often feature tail lights, number plates, and boot door handles. They can be curved or angular, detailed or simple. They can blend in with a car's body or stand out as points of interest.

![](_page_17_Picture_5.jpeg)

Two slopes with slots make a

pointed grille

2x1x1 curved slopes form a wraparound

bumper

#### IDEAS GALLERY

![](_page_18_Picture_1.jpeg)

### **BUMPER CAR**

Your minifigures had better prepare for a bumpy ride in this funfair favourite. Small, electrically powered bumper cars have rubber bumpers around their bases so riders can race around and crash into each other, creating car-based chaos!

Electricity cable is an antenna piece

l haven't bumped you yet, darling.

> 1x2 steering wheel stand and steering wheel

Aaaaargh!

Transparent red 1x1 plate tail light

Build more than one bumper car for maximum chaos

Black tiles and curved bricks look like smooth rubber

![](_page_20_Figure_0.jpeg)

### FAMILY CAR

A growing minifigure family needs a sizeable car for getting around town and for carrying all the equipment that new babies need! This simple family car design has room inside for two minifigures. It's built around one large LEGO Juniors chassis piece, which has ready-made car doors and built-in wheel-holding pins.

Ready-made

car roof piece

Daddy, I'd like you to drive me to the sweet shop before you drop me at nursery.

![](_page_21_Picture_3.jpeg)

Using a windscreen piece at the back leaves lots of space

1x2 grille tile engine grille

> This bottom part of the car is one LEGO Juniors chassis piece

The chassis piece has side studs that the front bumper pieces attach to

![](_page_22_Picture_1.jpeg)

### MINIFIGURE GEOMETRY

When building LEGO cars for minifigures, it's important to build the right amount of space inside to fit the dimensions of their bodies. They may also want a passenger to ride by their side, or they could need extra headroom to accommodate a hat or particularly voluminous hair!

### **SEAT WIDTH**

When sitting down, a minifigure's bottom half fits onto four studs – two studs at the front, and two behind. But minifigures' arms are more than two studs wide, so build in open spaces around your car seats. Tiles leave lots of arm space DRIVER ONLY = FOUR STUDS WIDE Panel pieces give enough room

> DRIVER AND PASSENGER = SEVEN STUDS WIDE

What about me?

#### **ROOF HEIGHT**

Getting the roof height right in your cars is just as important as the width. Think about who will be driving your car and whether they'll always be seated. Also allow for different head, hair, and hat heights as, just like humans, every minifigure is different!

![](_page_24_Picture_4.jpeg)

## AUTO RICKSHAW

Beep beep! Three-wheeled auto rickshaws can be found in many warm countries around the world, such as India. This one is small and speedy, so it can whizz along narrow city streets. Its open sides allow passengers to enjoy a cooling breeze as they ride along.

This is a window piece built into the canopy

*Does it have room for my luggage?* 

1x1 round tile headlight

> This front wheel is usually found on LEGO aeroplanes

Handrail is a bar piece between two round plates with open studs

![](_page_26_Figure_1.jpeg)

### VINTAGE CAR

This boldly coloured, compact classic car is a little piece of history. Designed in the style of practical family cars that were very popular from the 1960s, it has an iconic curved shape. It's perhaps even cooler today than it has ever been!

![](_page_27_Picture_2.jpeg)

Simple round tile headlight

SKILL LEVEL

![](_page_28_Figure_1.jpeg)

## **FUN FEATURES**

or automobiles that are out of the ordinary, build in some funny or unusual features. Think about what your LEGO car will be used for, who will drive or ride in it, and what your minifigure passengers might need for comfort or to stand out on the road. Let your imagination take the whee!

#### **CROWN JEWELS**

This car fit for a queen has a glistening gold crown on its roof, so there's no mistaking who's riding inside it. The crown has a base of white and black plates that look like a fur trim. Its distinctive golden arches are built from curved slopes and tiles. See more of the royal car on pages 86-87. 1x1 plate jewels attach sideways

2x1x1

slope

curved

2x2 macaroni

bricks form the rounded sides

2x2 wedge plate

This part of the crown is

called the

"monde"

1x1 slopes create elegant detailing

**IDEAS GALLERY** 

![](_page_30_Picture_1.jpeg)

Small plates form the beam \_\_\_

Inverted 2x1 curved slope

### SAIL AWAY

You could build alternative parts of your car models to make them even more fun to play with. The pirate car on pages 72-73 has a skull sail – here's how it would look when it's "lowered". Robot arm tail

### ANIMAL TAILS

The animal cars on pages 14-15 have adorable faces at the front, but they also have twisting, twirling, and twitching tails at the back! Each tail attaches to a side stud on the bumper.

2x1x1 curved slopes form the twists in this tail

Fluffy tail is a LEGO Technic ball

## CITY CAR

N ot everyone needs spoilers and fancy features on their cars – sometimes less is more! This nippy, compact car has everything a busy city driver might need: a sturdy chassis, wide windows, and neat little wheels. As an added bonus, it will never struggle for a parking space!

Roof is one 4x4 tile with four studs on its edge

We are both small and sophisticated. back windows

Windscreen pieces form the front and

4x1 double curved slope bonnet

> Simple side stripe is a 1x3 plate

Smooth wheels for city roads

Me too!

SKILL LEVEL

![](_page_32_Figure_1.jpeg)

## MOON BUGGY

Sam to Base... Can you put my dinner in the oven?

![](_page_33_Picture_2.jpeg)

2x2 inverted dish is a satellite dish

> Drill piece in the tool storage area

A 1x1 round plate with bar holds this dish

> Wide mudguards shield the driver from moon dust

This moon buggy is built to rove across the dusty, rocky surface of the moon so that astronauts can learn more about the landscape there. It has four heavy tyres to stop it floating away into space, and two satellite-dish antennae for communicating with other astronauts or people back on Earth.

SKILL LEVEL

![](_page_34_Figure_1.jpeg)

## ENGINES

The engine is the roaring heart of a car. Without it, a car wouldn't have the power to move. These amazing machines are mostly hidden under the bonnets of cars, but all their metallic pistons, cylinders, and pipes make them interesting to build. *That engine looks just like my pet dog!* 

![](_page_35_Picture_3.jpeg)


# QUAD BIKE

This heavy-duty four-wheeled vehicle can power through places most cars can't. Thick mud, steep hills, and rocky terrain are no trouble for a quad bike, but it can also join regular cars on roads. This quad bike has four extra-thick tyres and protective bars on its front bumper.

*My costume not only looks cool – it also provides padding in case I fall off!* 

Handlebar controls the steering

Bumper bar is one grille guard piece

Seat and mudguards are one piece

Four front headlights

> Wide, off-road tyre



The grille guard piece attaches here

case it flips or crashes.

### **GOLF CART**

This little electric golf cart whizzes around the greens and fairways of golf courses, taking minifigures and their clubs all the way to the 18th hole. Built in a traditional black-and-white colour scheme, there's room inside for one golfer and a club storage area at the back. Flagpole is a bar attached to a brick with open stud

Two 1x4 tiles form

the squared-off canopy



Golf club heads are 1x1 plates with side clips

Anyone know a short putt to the 18th hole?

> Slope bricks create a rounded edge

A 1x2 brick with hole

forms the hole!

Small 2x2 curved slope bonnet

A clip-and-bar connection holds the canopy frame at an angle



### WHEELS AND CONNECTIONS

Learn more about this off-roader on pages 6-7 Find out more about the auto rickshaw on pages 24-25

Without wheels, a car wouldn't be able to fulfil its purpose – to enjoy life on the open road! This book is filled with wheels and ideas for ways to connect them, but here are some particularly interesting or useful examples.

#### THREE-WHEELER

The auto rickshaw shows two types of wheels and different ways to attach them. The solo front wheel clips onto a 2x2 plate with wheel holders, while the two back wheels slot onto a 2x2 plate with wheel holders.

2x2 plate with

wheel-holding pins

The wheel fits between these two holders

Wheel centre with stub axles



Smooth back tyre

and hubcap

#### **SPARE TYRE**

The off-roader is the only car in this book that has five wheels! It has a spare one attached to its rear, on a 1x2 plate with wheel-holding pin. The four other wheels use the same pin connection, but on 2x2 plates.

2x2 plate with pin hole

Wheel trim with spokes

#### **ON A ROLL**

The hot-dog car is proof that a car's wheels don't need to match, or even connect the same way. These two connections show how different parts can do the same job. See more of the hot-dog car on pages 44-45.

Modified 2x2 brick with wheel holder LEGO Technic

pin

Heavy-tread tyre

Find this

monster truck on pages 90-91

#### **MONSTER WHEELS**

Supersized wheels need strong connecting pieces to hold their weight. A sturdy LEGO Technic liftarm attaches to pins on the monster truck and also holds a wheel-holding pin.

*My tyre was flat, but only at the bottom!* 

> Snug mudguards make the tyres look even more enormous!

3x3 LEGO Technic liftarm

This is the back of a spoked wheel trim

# **RACING CAR**

Your minifigures can live life in the fast lane in this racing car. Based on the vehicles used in big racing events such as Formula One, it has a single seat for the driver and an open cockpit. Its low, narrow shape allows it to reach high speeds while clinging to the twists and turns of the racetrack.

You still have a lap left to go!

I'd like to dedicate my win to my mother.

> The body of the car is low to the ground

> > The engine is positioned behind the driver

The driver fits snugly in here

This front wing pushes air over the top of the car



Tapering

nose is a 4x2

curved slope

#### LIGHT AND FAST

A super-speedy car like this one needs a light chassis, with no heavy or unnecessary pieces. This minimal chassis is built around a 2x16 plate. Long LEGO Technic axles slide through bricks with holes on the chassis plate to provide places to attach the wheels on the final model.



# HOT-DOG CAR

Many people love hot dogs, but the owner of this car really, *really* loves hot dogs. With a curved bun base, a mustard-streaked sausage centre, and ketchup and mustard exhausts, this car is no old banger!

It's not the

wurst car I've owned.

> Yellow 1x2 steering column and wheel

2x2 dome frankfurter end

2x1 curved slopes make a smooth bun shape

2x2 plate with

wheel holder

Orange sausage pieces are

mustard streaks!

Ketchup and mustard-coloured 1x1 round brick exhausts

2x2 plate with pin hole

**BEGIN THE BUN** 

A car shaped like a long hot-dog bun needs a lengthy chassis base. The hotdog car is built around a 2x10 plate. Double inverted slopes attached underneath the chassis plate give the bun base a curved look.

The 2x10 plate can be any colour

4x2 double inverted slope with cutout



### CHANGED-UP CARS

Hard-top roof is one piece

What happens if you take an ordinary looking car and modify it in different ways? By moving and changing just a few pieces at a time, you can customize and enhance your own existing car models.

> The bumper bricks attach to these studs

ORIGINAL CAR

If you don't have a spoiler piece, use plates and tiles instead

#### SPOILER

Use pieces with clips to attach a rear spoiler if you want the car to look more speedy. The spoiler will help the car to grip the road when it's moving very fast.

#### IDEAS GALLERY



attaches to studs on original bonnet piece // 47

# **BLACK CAB**

Hop in! The meter's running.

1x1 round tile headlights

Taxi! This black cab covers miles and miles of city streets each day, picking up passengers and taking them wherever they need to go. Its timeless black-and-chrome design features a light at the top that tells people the cab is available for hire.

> Room for passengers

Chrome grille is two 1x2 grille plates attached vertically

See how to build the chassis on pages 10-11

Wing mirror is a 1x1 plate with side ring

1x2 steering column and steering wheel These 1x2 plates with rails create a smart chrome trim around the cab

2x2 seat

#### **ROOM FOR TWO**

Taxi passengers usually sit behind the driver, so it's important to build two rows of seats inside. Place the front and rear seats inside your build at an early stage to ensure there's plenty of minifigure headroom and leg space.

Use bricks with side studs to build out at the front of the cab

Pieces that can't be seen on the outside can be any colour The cab door fits inside this 2x6 double inverted slope

#### **BUILDING IN BLACK** 1x4 tile armrest The bodywork of the black cab is taking 4x2 mudguard shape, with smart mudguards and pins for the wheels that are attached underneath the chassis. There are 1x4 brick doors and blue tile armrests for the driver. Take me to 1x4 brick door LEGO City, This modified 2x4 please. brick with wheel pins fits under the chassis 2x2 curved slope DISTINCTIVE DESIGN This half pin is the The front section of a classic black cab base of the headlight has a unique shape. The cab's long, curved wings are made from small curved slopes and round bricks with holes, which the headlights slot inside. At the rear, the bumper is tall and flat. 1x1 double 2x2 curved curved slope 2x2 curved slope The roof has a slope bonnet bottom layer 1x2 tile of plates 2x6x2 windscreen **READY FOR SERVICE** Taxi passengers love to watch the city streets whizz by on their journeys. Build a wide windscreen and lots of windows around the seats before adding the roof. The taxi light is a 1x2 transparent orange tile on top of a plate in the same size and colour. 1x2x2 panel

## **PICK-UP TRUCK**

We're about to pick up some gnarly waves!

With an enclosed driver's cabin at the front and an open cargo area at the back, pick-up trucks like this are practical vehicles. They are often found on farms or in places of work because they can carry large or heavy loads at the back. But they are also used as regular cars by people who appreciate the extra storage space!

> Curved door panels made from two curved slopes and a tile

Large mudguards protect the truck from dirty roads

Wide wheel-holding plate with LEGO Technic pins

6x6 plate

Large grille made from four 1x2 grille tiles attached vertically

#### LONG AND STRONG

The pick-up truck's chassis build begins with one long 2x16 plate, which supports the whole length of the vehicle. Plates with wheel-holding pins fit under it, along with inverted curved slopes to better secure the truck's wheels from underneath.

2x16 plate

2x2 inverted curved slope

Wide wheel-holding plate with LEGO Technic pins

MA



### SWITCHED-UP PICK-UPS

The pick-up truck on pages 50–51 can be reimagined in multiple ways. Look at the pieces in your collection and think about how you could modify your models to add extra tools and functions, create different looks, or turn them into something else entirely.

#### **CRANE TOOL**

Adding a small crane to the back cargo area makes the pick-up truck even more fun to play with. The crane attaches to the truck with a click-hinge connection so it can move up and down.

*Call me if you ever need to get a car out of a ditch.* 

#### HARD-TOP BACK

For a covered cargo area, build up the rear of the pick-up truck using bricks, then add a 4x8 plate on top to finish it off neatly.

1x6 brick with click-hinge connections

The hook also moves up and down

There's a tile here with a hinge connection on top



A 1x2 plate with clip holds the flame Lightning-bolt piece adds detail to the side door







#### 

**HIGH WHEELS** 

A speedy sports car needs a body that's low to the ground so it can move fast and make sharp turns with ease. To keep the chassis low, attach the wheel axles and mudguards slightly above it.



This 1x4 plate raises up the mudguard

1x1 tile

2x4 plate attached to a 1x2/2x4 bracket

#### **BUMPER DETAILS**

The headlights and number plates at the front and rear of the sports car are attached using sidewaysbuilding techniques. Bracket and headlight bricks are especially useful for sideways or SNOT building.

The windscreen

attaches here

Yellow 1x2 tile number plate 1x1 headlight brick

1x1 transparent orange plate is a glowing headlight

#### **SMOOTH RIDE**

extends the racing stripe Curved slopes and small tiles form the sports car's smooth, racing-striped bonnet. Several curved slope pieces above the back bumper continue the sleek curves at the rear. 1x4 tile lt's a top-down kind of day! 2x4 tile is the folded-down roof 2x1 wedge slope 1x1 transparent 1x2 grille tile orange plate brake light **REAR VIEW** 1x2 curved slope

### MICROSCALE VEHICLES

hese mini vehicles are fun to build from a small number of tiny bricks. They're all

microscale, which means smaller than

can become a whole car bonnet, two

skateboard wheels are full-sized tyres.

The roof is one 2x2 curved slope

minifigure scale. At microscale, a 1x2 tile 1x1 cheese slopes are a windscreen, and

Transparent red 1x2 plate tail light



#### Two 1x1 cheese slopes are

#### CARS

These cars may be small but they have lots of detail. The blue car has a tailfin for a 1950s look, the orange one has little red tail lights, and the pink car's body is low to the ground.







Why not try making microscale versions of your favourite builds? This mini 4x4 has all the details of its larger four-wheeled friend (which can be seen in more detail on pages 6-7).

Two cheese

windscreen

slopes for the



### UNDERWATER CAR

There are roads all over the land, but much of the ocean is unexplored – until now! This propeller-powered aquatic automobile is built to roam the ocean floor. The underwater car's two watertight seats have big bubble windows so its driver and his small passenger can get a 360-degree view of the passing marine life.

Smaller rear seat and window

Thick tread tyres for moving through sand *I bought this car for shellfish reasons, but the boy seems to like it, too.* 

Bubble window is a half sphere windscreen

> Snorkel bumper with bubbles

Lifebuoy and flipper door handle

2x10 plate

2x2 modified plate with one wheel pin

> These pieces are the base of the bumper

2x1 inverted curved slope

#### SANDY CHASSIS

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The underwater car has a high chassis because it spends most of its time navigating deep-water sand dunes. It's built around a 2x10 plate. Plates with wheel-holding pins fit to smaller plates underneath it, so the chassis plate is higher than the wheel pins.



### DRIVERLESS CAR

This is one clever car! Driverless or self-driving cars like this don't need a driver because they can plan a driving route, read road signs, and sense the environment around them. This build has an access ramp and plenty of room inside for someone in a wheelchair.

Six curved slopes form the short bonnet

Simple 1x1 round tile headlights The large back door opens at the top

Look, no hands!

1x1 cheese slope wing mirror

> Small, smooth tyres

#### **BUILT-IN RAMP**

The low base of the driverless car has a first layer of a 4x8 plate with lots of smaller plates on top to make it six studs wide. A row of curved slopes at one end forms the ramp for getting in and out of the vehicle.





The cheese slope wing mirror attaches here

Where shall I go today?

**REAR VIEW** 

hinges

2x6x2 windscreen

2x1x2 slope brick

DISPLAYING YOUR CARS

#### FLOATING DISPLAY

A LEGO car can rest on the 2x4 brick at the top of

this small, angled holder f you've built a LEGO car you're and look like it's floating. particularly proud of, you might want to The brick is at an angle thanks to a hinge-brickbuild somewhere to display or park it when and-plate connection you're not playing with it. Your favourite underneath it. car could be floating, floodlit, or posing next to a cityscape. What a show-off! 1x2 hinge brick base 2x4 tile with clips Light lens is a 2x2 boat stud 2x2x10 triangular girder piece

Looking good!

Plate with bar handle

#### **LIGHTING RIG**

Lights, camera, action! Shine a light on all your best building work by creating lighting rigs to display your vehicles beside. The large floodlights at the top are angled using a clip-and-bar connection.



-

Cheese slope rooftops

Where did it go?

alternating opaque and

transparent tiles.

2x2 tile road surface

# CLOUD CAR

Not all cars need to be built for the road. This imaginary flying car floats high among the clouds, spreading colour and cheer instead of petrol fumes from its rainbow exhaust! It looks just like a fluffy cloud thanks to its rounded shape and white-and-aqua colour scheme.





Transparent 1x2x1 panel is a tiny windscreen

1x1 double curved slopes make a curved bumper Tiles and plates in rainbow colours for the exhaust

2x2 round tiles attached on the side enhance the round, fluffy shape

4x8 plate

2x1 curved slope

#### **FIRST CURVES**

The base of the cloud car isn't as fluffy-looking as the exterior - it's one rectangular 4x8 plate. But the cloud curves are already starting to appear, with the addition of curved slopes underneath the front and back of the chassis.

2x2 curved slope

Thin 2x2 plate with tiny wheels



1x1 brick sits behind the bracket

Leave space for a minifigure passenger

These clips attach to the handle at the back of the car

> 1x1 plate with side clip

> > 1x4 tile creates a smooth edge

The 3x5 cloud plate is perfect for this car!

#### **FLUFFY FLOURISHES**

This 1x2x1

Add more slope pieces and curved slopes to the front, sides, and top edges of the cloud car to create a fantastically fluffy look. Finally, add a windscreen, lights, and a rainbow exhaust that will fill the sky with colour.

**REAR VIEW** 

1x1 round tile tail light





# MAKING ROADS

f you're tired of pushing your LEGO car creations over carpets and tables, build them smooth roads to drive around on! Here are some building ideas for roads as well as interesting features on and around them, such as pavements, cycle lanes, and zebra crossings.

#### TILE ROADS

You can build smooth tile roads on top of plates. The plates underneath can be any size, as they'll be covered by the tile road surface. But you could leave some plates exposed so you can attach trees, plants, and other roadside items to them.


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## **PIRATE CAR**

Shiver me timbers! Is it a car? Is it a boat? It's both! A pirate's life may be mostly spent at sea, but when a salty seadog needs to be a landlubber like the rest of us, this pirate car has everything they need to feel at home. There's a wide deck, ship's wheel steering, and a scary-looking sail.

Have you got

any treasure to pay for parking? Skeleton skull on the mainsail

The ship's wheel can spin

The boat is one ready-made piece

Thick-tread tyres for rolling on sand 1x1 round brick forms the top of the mast

> The poop deck is the car's boot

#### **HULL CHASSIS** The base of a boat is a hull and the base of a car is a chassis, so this build is a bit of both! It begins with a 14x5x2 boat layer of inverted slope bricks attached to a plate. piece More plates with pins fit underneath it. A boat piece then goes on top of the base. 1x2 jumper 2x2 inverted plate slope bricks 1x1 tile with clip 2x4 plate with pins This 2x8 plate locks in the plates above it 1x2/1x2 brackets WALK THE... STEPS hold up the sail The next stage involves building inside the boat. Stepped jumper plates and 1x4 plates form the 1x1 round tile skeleton eye steps leading up to the poop deck. At the front, add a tile with clip to attach the figurehead to later. 1x1x6 pillar mast 1x1 half circle **RAISE THE SAIL** tile jawbone 2x2 macaroni tile is part of After polishing the poop a gold trim The ship's wheel deck, it's time to build the spins on a pin tall mast and then the attached here A bracket piece skeleton mainsail. Its skull here holds the face is made from small rear details tiles and jumper plates attached to a 4x6 plate. The car's figurehead is a 4x4 trapezoid flag 1x1/1x1 inverted bracket

2x2 slope raises up the wheel

# **YELLOW TAXI**

Will you be my

getaway vehicle?

Long, flat bonnet is two 2x4 tiles

You can't miss this bright yellow taxi cab. Hail one of these and it'll take you anywhere you need to go. Yellow taxis like this one are associated with New York City, but they can be found in many cities around the world.

> Two double slopes make a rooftop advertising sign

Flat boot formed from plates on their sides

Square 1x1 tile headlights Chequered door made from narrow plates in alternating colours

2x4 mudguard piece

## LOW CHASSIS

The yellow taxi's body is wide and low to the ground, so there are two extra layers of plates underneath the 2x8 plate that the wheels attach to. More plate layers fit above that plate, including two 2x4 mudguard pieces.



2x2 plate with wheel-holding pins

1x1 plate check pattern

1x4 plate is the

top of the door

### TAXI!

Now the distinctive door pattern is in place. The bottom layer of the checks is made from 1x1 plates, but the top layer is 1x4 plates. The rest of the bodywork is taking shape, too, with front and rear bumpers and head, tail, and side lights.

The front bumper pieces fit sideways onto a 1x2/2x4 bracket

1x2 grille tile

The roof sign fits onto jumper plate studs

2x1 slopes with cutouts are the windscreen

Smooth, two-tile

1x2 slope

## **READY FOR HIRE**

Just add wheels and this taxi is ready to set off through the city streets. You could make several taxis like this to create a gridlocked traffic jam! Top layer of 1x4 plates in alternating colours

1x1 double slope

1x2 tile



The roof of the taxi is as low and flat as the rest of the vehicle. It's made from tiles and jumper plates. They fit on top of two 2x4 plates that form the black side windows. The sign on top of the roof advertises must-see city sights and shows!

1x2 slope

**REAR VIEW** 

**REAR VIEW** 

1x2 tile

Wheel trim with spokes 1x2/2x2 brackets

hold up the boot

and rear bumper

## STREET FURNITURE

There are lots of objects on or near roads that are there to keep us safe, whether we're in a car or walking or working near them. These objects, known as street furniture, are often overlooked in real life, but they can make a LEGO road more interesting.

I've got to dig

this hole and

put the rubble over there.

1x1 plate with side clip

## TRAFFIC LIGHTS

The red, amber, and green 1x1 round plate signals on this set of traffic lights slot into the underside of a 2x4 plate.

> 2x2 brick rubble

This is the tube part of a 1x1 round plate

**TRAFFIC BARRIERS** 

Repairing roads (or "roadworks") is a regular – and sometimes annoying – part of everyday life. Try building these traffic barriers to tell your cars to keep away.

Radar dish feet

Using 1x2 tiles in alternating colours tells drivers there's a hazard here



## GINGERBREAD CAR

Your minifigures will need a sweet tooth to take a ride in this kooky convertible. It has gingerbread bodywork, seats lined with boiled sweets, and an ice-cream-emitting exhaust! They'll never need to remember car snacks again.

> 1x2 slopes make an iced white dashboard

Bright 1x2x1 curved slope seats

> lce-cream scoop exhaust

1x2 tile number plate 1x1 round tile is a boiled-sweet door handle

*This car takes the biscuit!* 

2x2 modified plate with wheel-holding pin

### The base of the gingerbread

car is made from bricks and plates in any colour, because it can't be seen on the final build. There's a blue 2x10 base plate, with more plates fitted horizontally across it to add width. Bracket pieces at each end hold the front and rear bumper pieces.

INGREDIENTS

1x2/2x4 bracket for the bumper

2x10 plate chassis

There are smaller plates underneath, too

2x1 inverted slope brick

These pieces make the bumper rounded

2x2 bricks fill gaps in the middle

SHAPING THE DOUGH

Now the car has round, icing-coloured mudguards for the wheels to whirr inside and gingerbread side doors made from inverted slope bricks. The front and back bumpers are in place too, with headlight and number plate details.

Round tile headlight attached to a 1x1 plate Leave this space for the seats

Round mudguard piece

1x2x1 curved slope armrest

Add a tile on top of this 1x6 plate for a smooth finish

## **FRESHLY BAKED**

Build up the gingerbread bonnet with brown plates and tiles, then add curved slopes and wedges for a rounded finish. Next, add the wheels and boiled sweet details, and this gingerbread car will be ready to serve to your minifigures!

The door handle will fit onto this 1x2/1x2 bracket

White pieces create an iced trim

2x1 wedge on the bonnet edge

# CAMPER VAN

Your minifigures can enjoy the freedom of the open road in this camper van! Made for adventure, it's a compact home on wheels, with built-in bunk beds, sitting areas, and a small kitchen. The roof lifts off and one of its sides opens on hinges so it's easy to play inside.

The roof lifts off from this 6x16 plate

> Anywhere we can buy more matching tracksuits!

Extra-large windscreen

we go to next, Susan?

Where shall

1x1 transparent plate side light Headlight is a transparent 1x1 slope

## HOME SWEET HOME

To build the foundations of this mobile home, start with two 4x8 plates. Attach mudguards above them and wheelholding plates below, locking them in with another plate underneath. Then build up the sides and bumpers of the van with more plates and bricks.





undersheets!

number plate

## AROUND THE TOWN

There are many familiar roadside sights that your LEGO® cars might whizz past on their road journeys. Practical places such as bus stops and newspaper stands, blooming flower planters, and even benches and barriers are all fun to build and play with.



## **BUS STOP**

This bus stop has a sturdy sign pole that lets minifigures know which buses stop there. There's also a large shelter with a bench to rest on in case they've just missed one! Round plate with flower petals

1x4 brick with side studs

## **FLOWER PLANTERS**

Bring your LEGO road-users some cheer by building brightly coloured flower planters. These planter boxes are built up from 4x6 plates. The tile wooden planks around the edges are attached to bricks with side studs.





## ICE-CREAM VAN

What's that sound? Could it be...? The ice-cream van's here! Hearing the cheerful melodies of this vehicle brings joy to children and adults alike on a warm summer's day. A quirky and colourful shop on wheels, the ice-cream van drives around residential streets selling delicious iced treats from its serving hatch.

> 1x1 half round tiles form the curved ends of this shop sign

2x2 dome with hole is a scoop of ice cream

A gold 2x2x2 cone makes a tasty-looking wafer cone

Striped roof made from curved slopes and tiles

l've had a sundae every Sunday since I was a girl.

> Bright colours to attract attention from all angles

Vanilla ice cream on the serving counter



# **ROYAL CAR**

his car can really stop traffic - and for good reason! It's built to carry LEGO royalty and other VIPs to their very important appointments. A shiny gold crown sits atop its classy black bodywork, and there's even a red carpet inside for the minifigure monarch.

Tiara

hood

One is only popping out to the dentist

1x1 plates with clips are royal family flags ornament

See more of the bumper on page 16

Learn how the crown is made

on page 28

Large, round

6x8 plate

headlights made from 2x2 boat studs

1x2/1x2 bracket

## **REGAL AND ROOMY**

•••

The royal car needs a long, wide base in order to offer its royal passengers the luxury of plenty of space. It's built around a 6x16 plate with a 6x8 plate placed horizontally on top.

Grey 1x6 plate underneath

LEGO Technic 1x2 bricks with holes hold the wheel pins

Darkened windows for privacy



## **STEER CLEAR**

Instead of a steering wheel panel, the royal car has steering built into a dashboard made from a bracket and two plates with clips.

> 1x2x2 panel window

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T-piece holds the wheel

## ROYAL PROTECTION

Now the royal car has a sloping, smooth bonnet made from curved slopes to protect its engine. It also has a smoked glass windscreen and windows to protect its passengers' privacy. This plate with ring is the base of the wing mirror

The bonnet ornament fits onto this stud

The windows are topped with mostly tiles so the roof can lift off

1x1 round tile with bar

2x2 plates and boat studs make curved headlights

## AROUND THE RACETRACK

The top racer wins this trophy

> You could also make square

> > 1x2 brick

platforms

with plates

A racetrack is more than a circuit for your speediest LEGO cars to race around. Creating some of these little models will turn a road into a lively racing arena. Ready... set... RACE!

> Flagpoles attach to 1x4 plates with two studs

Each number is made from smaller plates in a contrasting colour

### PODIUM

This is where all racing drivers want to be at the end of a race! The three platforms of this podium are made from plates and curved slope bricks.

Bricks in different sizes form the stepped sides

> One 2x8 plate bench can hold several minifigures

## GRANDSTAND

Speed-loving spectators can sit together on this grandstand and watch the action whizz by on the track. Each stepped layer of seats is made from two 2x8 plates, which rest on three sections of bricks. 1x8 tile /

2x2 slope brick 2x8 plates form the barrier's base

## **CRASH BARRIER**

Racing cars move at huge speeds and they can sometimes crash. These protective barriers stop spectators getting hurt. They are made from regular and sloped bricks, with tiles on top.

#### IDEAS GALLERY



## MONSTER TRUCK

Smaller automobiles cower at the sight of this beast of a car - it can crush them in seconds! A monster truck is a regular pick-up truck or car that has been modified to have enormous wheels and intimidating features, such as an exposed engine, bright lights, bumper bars, and even chomping teeth.

> Bumper bars made from prison

window bars

Floodlights are th<mark>e</mark> undersides of 1x1 round plates

> 2x2x3 slope bricks support the roof

A monster truck this terrifying is a rare sight.

> These tyres are often seen on LEGO tractors

## MONSTROUS BASE

This is a chassis built around two LEGO Technic bricks with holes, which attach to three 4x4 plates below. Wide, arched mudguard pieces fit onto the bricks. Bricks with pin holes and large bracket pieces sit inside the space between the longer bricks with holes.

Tooth plates hang from the bumper

4x3x1 curved mudguard

1x14 LEGO Technic brick with holes 5x2x1 bracket

2x2 brick with pins and axle hole

Enormous wheels hang from these two pins



LEGO Technic liftarm

# IN THE GARAGE

E ven LEGO cars need regular maintenance! Build your vehicles a garage or workspace and fill it with all manner of tools and equipment to get them fixed up and back on the road in no time.





## LIMOUSINE

This chauffeur-driven stretch limousine is a party on wheels! Its luxurious interior has a swanky sofa, its own karaoke machine, and best of all a hot tub at the rear. Just don't make any sharp turns!

6x2x3 windscreen

Three 2x4 tiles create a sharp-edged bonnet

> 2x2 modified plate with wheel-holding pin

Small curved slopes form the rounded bumper

4x10 chassis piece with recessed centre Opening side door has two hinge-plate connections Transparent blue 1x2 plates and tiles are whirling hot-tub water

*This is great if you ignore the honking!* 

### **STRETCHED CHASSIS**

An extra-long car needs a double-length chassis. The limousine's base is made from two ready-made chassis pieces. There are two plates with wheel pins at either end of the chassis and white plates underneath and around them.

The rear bumper will attach to these modified plates with side studs

2x2 corner plate

2x4 plate

### CHAUFFEUR'S SEAT

After building up the chassis with plates, add crisp white mudguards above the wheel-holding pins and put in a seat and steering wheel for the chauffeur. At the back, add bricks and more plates to create a raised section for the hot tub.

These small plates won't be seen in the final model so they can be any colour

4x2 mudguard with arch

The door fits onto

this swivelling hinge-plate

connection

Dual headlights made from a 1x2 rounded plate and two 1x1 round tiles

#### 1x1 plate with ring wing mirror

**BUMPER TO** BUMPER

Both the limousine's bumpers are built separately from the main build. The front bumper has a pointed silver grille and dual headlights for a glitzy look. There are matching dual tail lights on the rear bumper that are made using the same technique.

Combining four 2x1 slopes with slots makes a pointed grille

Transparent black 1x2x2 panel is a smoked-glass driver's window

1x4 brick with

side studs

## CAR KARAOKE

Add the smoked-glass windscreen and blacked-out windows of the limousine, then get ready to party! Build pieces with side studs into the door to attach the karaoke sound system and other fun details to.

1x2 inverted bracket drinks shelf

These plates fill a gap between the door and the roof

> Modified 1x4 plate with two studs

top of the door helps you open it

This tile at the

1x1 star pieces attach to bricks with side studs on the side windows

**INSIDE VIEW** 

1x1 tile with clip

piece

holds a microphone

## **RAISING THE ROOF**

2x4 plate speaker base

Round

2x2 tile

with hole

The long white roof has a base layer of plates topped with tiles and curved slopes. It attaches to four exposed studs on one side of the limousine so it can be removed easily.



Senior Editor **Helen Murray** Project Art Editor **Jenny Edwards** Senior Production Editor **Jennifer Murray** Senior Production Controller **Louise Minihane** Managing Editor **Paula Regan** Managing Art Editor **Jo Connor** Publishing Director **Mark Searle** 

Packaged for DK by **Plum Jam** Editor **Hannah Dolan** Designer **Guy Harvey** 

Models designed and created by Nate Dias

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