

Activity Idea

Introduction to Automotive Repair

Recommended for Adults

Introduction

Do you want to learn a practical skill that you will regularly use? Or maybe you're a car owner who wants to save some money? Are you even a little-bit handy with tools? If you answered yes to any of these questions, you should definitely consider DIY (Do-It-Yourself) automotive repair!

Many common repair and maintenance services are well within the skills of most people. With the right mindset and tools common procedures such as changing engine oil and transmission fluid, replacing windshield wipers, checking tire pressure, replacing a cabin air filter, changing a tire, and jump-starting a car should be very manageable! Below, we list some tips and resources that will teach you how to carry out basic upkeep on your vehicle and save valuable time by not waiting hours at the dealership or garage.

Note: For serious repairs, you should seek the guidance and/or services of experts.

Handy Tips:

- *Determine exactly what needs maintenance, upkeep, or repair.*
 - Routine maintenance usually depends on a car's mileage and is explained in the vehicle's manual. Incidental issues are usually represented by a notification light on your dashboard, such as the "check engine" light. If you have a newer model car with a display screen, it may provide further details, along with a visual graphic. Some repair issues can also be seen, such as underperforming windshield wipers, a flat tire, or chipped paint.
- *Find out if the intended repair is still covered under your vehicle's manufacturer or dealer warranty.*
 - Even if you own a late-model vehicle, it might still be under warranty. Certain manufacturer warranties or dealer incentives include free routine maintenance for a certain period of time or for specific repairs. A quick check may help save you money.
- *Determine the exact year, make, and model of your automobile.*
 - This is important to find the proper procedure and compatible parts for your vehicle since sometimes even the same models have multiple versions.
- *Make sure you have the appropriate tools for the job.*

- Before you start, double-check that you have the correct tools for the repair you're making. There are few things worse than being half-way through a repair and realizing you don't have the right-size socket wrench to continue.
- *Find instructions, and order supplies, if necessary.*
 - Find as specific a guide for your vehicle as possible using the resources provided below. Order any tools you will need and parts as necessary to facilitate the repairs (e.g., pair of windshield wiper blades if replacing wipers). Double-check that the parts are correct for your specific vehicle.
- *Be safe!*
 - Always follow safety procedures and wear protective equipment (gloves, etc.). Take some extra care, especially if you're an auto repair novice.

Further Resources for Learning:

The world of DIY auto repair may seem overwhelming. Thankfully, there are a multitude of free resources such as books, website guides, and videos for almost any basic repair. Below is plenty of examples to get you started on your journey to automotive repair proficiency.

Online Resources:

Chilton Library <https://tinyurl.com/yb4tspdz>

Chilton is one of the most reputable publishers of automotive manuals, and is available for free from Gale Cengage with your LA County Library Card. It features full manuals for vehicle maintenance and repairs, for almost every make and model from 1901 until the present day, including electronics diagrams, and more.

Cars.com <https://tinyurl.com/y7jdbbcn>

Cars.com is the one of the largest and longest-running automotive classified websites. In addition, it also provides a DIY auto repairs section for a plethora of cars, with how-to videos for many common repairs.

iFixit <https://tinyurl.com/y6w2vlaq>

iFixit originally began as an Apple product repair website, but has since expanded to many DIY repair topics, including automotive. Step-by-step instructions, pictures, and a list of parts and tools are notable features of their repair guides.

AutoZone <https://tinyurl.com/y8odk7ox>

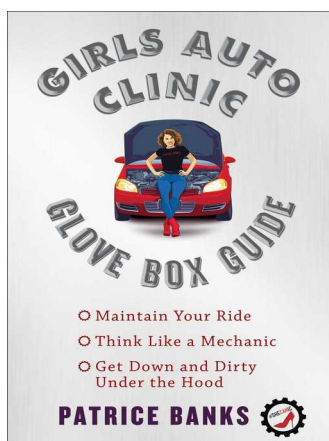
You may know AutoZone as an auto supply store, but they also have free vehicle repair guides and videos that cover diagnostics, repairs, and auto parts.

Books:



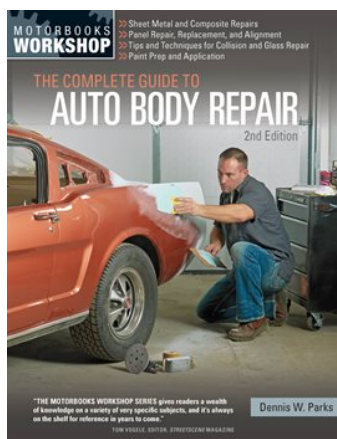
Auto Repair and Maintenance – by Dave Stribling, on OverDrive
Troubleshoot, diagnose, and repair common auto problems with step-by-step, full-color photos and illustrations

<https://tinyurl.com/y9yqmcyp>



Girls Auto Clinic Glove Box Guide – by Patrice Banks, on OverDrive
A DIY guide to auto maintenance, roadside emergencies, and how to get honest auto service at the garage

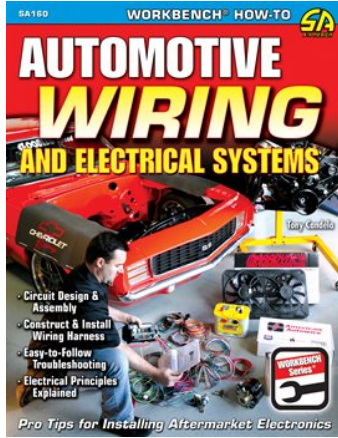
<https://tinyurl.com/y7hjffw>



The Complete Guide to Auto Body Repair – by Dennis Parks, on Hoopla

From tools to materials to techniques, this book takes you all the way through the process of learning how to disassemble, repair, and reassemble bodywork, as well as how to prepare surfaces for paint

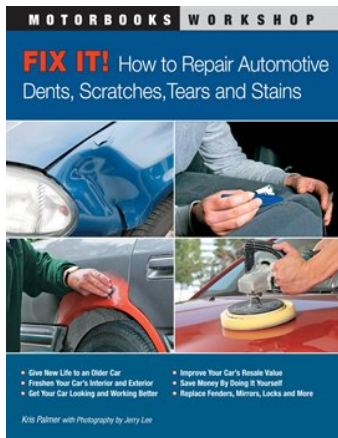
<https://tinyurl.com/y8cfyqv3>



Automotive Wiring and Electrical Systems – by Tony Candela, on Hoopla

Learn to assemble, design, and build single- and multi-function circuits and harnesses, troubleshoot and repair existing circuits, and install aftermarket systems and electronics

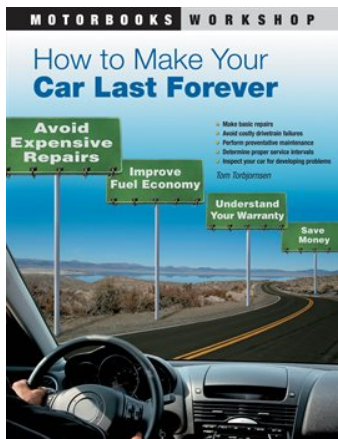
<https://tinyurl.com/y7xppscv>



Fix It! How to Repair Automotive Dents, Scratches, Tears and Stains – by Kris Palmer, on Hoopla

Provides step-by-step projects anyone at any skill level can accomplish to help keep their car looking its best, including buffing a scratch to popping a dent

<https://tinyurl.com/ya63glvv>



How to Make Your Car Last Forever – by Thomas Torbjornsen, on Hoopla

Guides you through preventative maintenance, repairs, extended warranties, and the what, when, and why's of automotive maintenance and repairs in easy-to-understand terms to extend the life of your car indefinitely

<https://tinyurl.com/yb7wxr3g>