



Getting started in the hobby

A shopping list for first-time model car builders

by MATTHEW USHER photos by JIM FORBES

SO YOU'RE THINKING about building a model car. Maybe you put together a few kits when you were younger and are returning to the hobby, or maybe you're picking up a kit at the hobby shop for the first time. Either way, you'd probably like a little direction toward what tools and supplies you'll need to get started.

In the next few pages, you'll see tools for almost every technique at every level of car modeling. To keep you pointed in the right direction, I've divided the list into beginning, intermediate, and advanced levels, and provided a little insight into what tools work best for certain techniques.

The first list contains everything you'll need if you're starting with a kit and an empty workbench, and aren't sure what you need to get going. The rest of the lists will give you a good idea of what you'll need as you progress beyond the basics into more advanced techniques. To help you plan your budget, I've included an average price for each item, along with a photograph, so you'll know what to look for when you shop.

All of the supplies for this article were gathered from local hobby shops and mail-order houses, and the prices listed generally reflect the full retail price for each item. If you watch for sales and shop around, though, you'll be able to save some money.

LEVEL ONE: GETTING STARTED

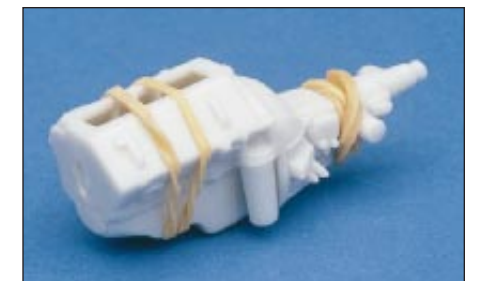
If you're a first-time modeler, take a look at the first shopping list of tools and supplies. This will get you up and running as a serious model builder, beyond just cutting out parts and slapping them together with a little glue. With these tools and supplies, you'll be able to construct a few good-looking replicas while you sharpen your building and finishing skills. You'll want to collect and become familiar with all of the items on the first list before you move on to the items shown on the intermediate and advanced lists.

Don't let the list's \$77 total discourage you. You probably already have some of these items around the house. If you can scare up rubber bands, toothpicks, tweezers, white glue, masking tape, and scissors, the total will drop to a little more than \$60.

The rest of the items are easy to find at hobby shops, and can even be tracked down

at well-stocked discount or hardware stores. A hobby knife, needle files, sandpaper, and sanding sticks will help you clean up the kit's parts, and a good pair of pointed tweezers will help you handle and align smaller parts during assembly. Regular modeling cement is a good adhesive choice at this point; it dries slowly and lets you adjust the position of parts before it dries. Don't squeeze it onto the parts straight from the tube, though; apply it sparingly with the point of a toothpick. A basic set of detail paints will give you plenty of color choices for under the hood and inside the car. A set of acrylic paints, like the one shown in the accompanying photo, will let you clean your brushes easily with soap and water when you've finished painting. Lots of spray-paint colors are available for the model's body, even colors matched to specific factory-stock and racing-team finishes.

If you're going to spray paint or air-brush your models, wear a good dual-cartridge respirator mask to protect your lungs. They're available for \$15 to \$25 at hardware and home-improvement stores.



Rubber bands are one of the handiest (and least expensive) modeling tools you'll find. During assembly, they'll hold parts together securely while the cement dries.



Attaching clear parts to a model can be tricky. Using too much regular model cement can soften and distort the parts, and superglue can "frost" their surfaces and ruin them. Water-based glues like Elmer's Glue-All and Microscale's Micro Kristal Klear are great for attaching clear parts; they're stronger than you'd think, they won't harm the plastic, and any excess glue is easy to clean off with a cotton swab and a little water.



BEGINNING TOOLS AND SUPPLIES

1) Hobby knife	\$3
2) Budget paint brushes	\$3
3) Sanding sticks	\$10
4) Needle-file set (3)	\$5
5) Sandpaper assortment	\$3
6) Masking tape	\$4
7) Rubber bands	\$1
8) Toothpicks	\$1
9) Tweezers	\$5
10) Spray paint	\$4
11) Paint set (9)	\$9
12) Thinner	\$3
13) Model cement	\$2
14) White glue	\$2
15) Scissors	\$7
Respirator mask	\$15
Total:	\$77

LEVEL TWO: INTERMEDIATE SUPPLIES



INTERMEDIATE: FINISHING

1) Single-action airbrush kit	\$55	8) Superglue debonder (1 oz.)	\$4	13) Paints (enamel, 1/2 oz.)	\$2	19) Liquid masking film	\$2
2) Airbrush thinner (8 oz.)	\$5	9) Superglue accelerator (2 oz.)	\$6	14) Paints (acrylic, 1/4 oz.)	\$3	20) Epoxy	\$5
3) Lacquer thinner (32 oz.)	\$5	10) Small scissors	\$7	15) Decal setting solution (1 oz.)	\$2	21) Weathering set	\$15
4) Paint brushes	\$15	11) Model wax (1 oz.)	\$3	16) Artist's watercolor palette	\$2	Total:	\$171
5) Chrome foil (6 x 11 1/2-inch)	\$5	12) Polishing kit	\$18	17) Eyedropper	\$1		
6) Filler putty	\$6			18) Fine plastic masking tape	\$3		
7) Superglue (1 oz.)	\$7						

Once you've tackled a few kits with the basic tool set, you'll probably start thinking about more advanced techniques, and this is where we come to a fork in the road. At this point, lots of modelers tend to concentrate either on improving their building and detailing skills (like adding engine wiring or plumbing) or finishing techniques (like filling seams and applying a perfect paint job). I've split the second set of shopping lists in two, one for finishing and one for building. You can always mix and match items from both lists to suit your budget and building style.

Finishing. The finishing list has most of the supplies you'll need to produce top-notch bodywork. A basic single-action airbrush will

let you custom mix individual paint colors, and apply them much more smoothly than with a spray can. A polishing kit will help you smooth out that finish even more, and a jar of model wax will bring it to a high shine. And nothing details trim parts as well as self-adhesive chrome foil.

Now is a good time to start thinking about using more advanced adhesives. Superglue will help you build faster and fill gaps and sink marks. It's potent stuff, though, and will bond skin to almost anything in seconds. Never use it unless you have a bottle of debonder handy.

If you're a replica-stock builder, think about investing in a weathering set. It'll come in handy for everything from adding a little rust around the muffler to modeling full-on

Grundy Salvage-style beaters (see "Hogdoo's Hauler," pages 62-66).

Building. The advanced building supply list is loaded with tools that'll help you modify parts and assemble them more easily. If you're thinking about doing a little bodywork like chopping a top or opening up panels, invest in a good fine-toothed razor saw. A rechargeable motor tool will help, too, particularly if you're planning to do extensive body modifications or are thinking about tackling cast-resin body parts or kits. A good set of small pliers will help you handle and fold up delicate photoetched metal detail parts. A scribe will sharpen up panel lines, and a small set of detail files will let you work in tight places easily.



Self-adhesive chrome foil is by far the best way to simulate chrome trim on your models. Cut a piece slightly larger than the area you want to cover, apply it to the model, and burnish it down using a cotton swab. For the best results, always use a brand-new hobby-knife blade to trim away the excess foil. A dull blade can tear the foil, leaving you to start over.

How do you get a flat decal to wrap around the complex curves of a car body? With decal setting solution. Setting solution softens decals and helps them snuggle down over molded-in details. Several brands of setting solutions are available, and all of them come with instructions. Experimenting with an extra, unwanted set of decals will help you get the hang of things.



Acrylic paint is ideal for painting recessed tire lettering. Thin the paint slightly with water and flow it onto the letters using a pointed detail brush. If you accidentally paint outside the lines, dip a cotton swab in water, wipe off the extra paint, and try again.



Why do they call it a pin vise? Because it's designed to hold tiny, pin-sized drill bits securely while you work. Team it with an assortment of drill bits and you'll be able to do lots of great detailing projects like wiring distributors, plumbing engines, and opening up exhaust tips.



INTERMEDIATE: BUILDING

1) Sprue cutter	\$11
2) Pin vise	\$10
3) Drill bit set	\$14
4) Clamps (5)	\$4
5) Scribe	\$12
6) Razor saw	\$8
7) Plier set	\$12
8) Rechargeable motor tool	\$35
9) "Extra hands" stand	\$13
10) Bow sander	\$22
11) Hemostat (medical clamp)	\$7
12) Detail files	\$6
13) Steel straightedge	\$7
Total:	\$161



ADVANCED TOOLS AND SUPPLIES

1) Double-action airbrush	\$100
2) Magnifier lamp	\$40
3) Sheet-metal bender	\$90
4) Scalpel	\$15
5) Multi-speed motor tool	\$80
6) Dial caliper	\$35
7) Soldering iron	\$10
8) Riffer file set	\$15
9) Paint (lacquer, 2 oz.)	\$6
10) Headset magnifier	\$25
11) Punch-and-die set	\$40
12) Color-balanced worklight	\$65
Spray booth *	\$450
Miniature lathe *	\$550
(* not shown)	

Total: **\$1,521**

LEVEL THREE: ADVANCED TOOLS AND SUPPLIES

The items on the advanced list are specialized, and some are pretty expensive. Like the beginning list, this list contains both building and finishing supplies.

A magnifier lamp or headset is handy if you're planning to do a lot of intricate detailing, or if you plan on working in a smaller scale like 1/43. If you'd like to fabricate body panels or chassis out of brass or other metals, you might want to invest in a sheet-metal bender and a good soldering iron. A dial caliper will measure the thickness of sheet metal and plastic accurately and help you make sure your engine wiring is exactly the

right scale thickness. A punch-and-die set will help you make consistently sized holes in sheet plastic and thin metal quickly and easily, while a scalpel will let you do even more delicate work than a standard hobby knife.

Custom-mixed lacquers are some of the most advanced paints for car models. They must be airbrushed and require special surface preparation, but they go on very thin, dry much faster than enamels, and polish out to a high shine. If you've ever wanted to apply a really complex finish to a model, a double-action airbrush will help you apply everything from a basic fade to an intricate hot-rod

flame job.

Speaking of airbrushing, consider buying a vented spray booth for your modeling room. Such booths cost several hundred dollars, but they'll protect you and your family from potentially harmful vapors when you paint.

As you can see by the advanced list, the sky is the limit both in terms of price and the different types of advanced techniques you can learn. I'd suggest picking up the advanced supplies over time as you discover the need for them. This way you won't gouge your wallet too much, or waste money on a tool you can't utilize right away.

WORKSPACE AND STORAGE

Once you've collected a number of tools, you'll need someplace to store them and a place to set up shop. A large plastic fishing-tackle or tool box has plenty of compartments for your tools and supplies, and is particularly handy if you only model from time to time, or don't have permanent workbench.

Once you have your tools organized, you'll need a place to work. Set up a workbench in the basement, a spare bedroom, or in a corner of the garage. Wherever you decide to work, make sure you have plenty of light, fresh air, and a comfortable chair. And make sure your work surface and the floor underneath it can handle a few accidents – paint and cement

Here's the workbench in SAE's shop. When you look for a place to work, make sure you have plenty of light, a comfortable, supportive chair, and a tabletop that can handle the occasional paint or glue spill.



spills can ruin tabletops and carpeting pretty quickly. An inexpensive plastic dropcloth from the paint section of the hardware store

will help protect things and keep the peace around the house.

Now get started on that new kit!

