

SOLO Novice Handbook

A guide to help you make it through your first season

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by [Kate Hughes](#)
Glen Region, SCCA
Painted Post, New York

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All you need to do is ask. Ask anyone, anything. If they can't help you, they'll point you to someone who can.

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What is Solo?

"Solo is a precision sport, much like, say, archery, riflery or golf. You must be precise and consistent, all the while driving so fast you can barely concentrate" -- Mark Sirota

SCCA Solo events (also known as autocrosses) are an all forward motion driving skill contest. Each driver is individually timed to the thousandth of a second, over a short, miniature road course clearly defined using traffic cones. Cars compete one at a time, hence the name "Solo," in a class with similar cars. An event can be held on any flat paved surface, usually a parking lot, or airport apron or runway.

Solo emphasizes driver skill and vehicle handling rather than just speed. The corners are tight, and there are lots of them, so the driving is exciting and challenging. Solo speeds do not exceed those normally encountered in highway driving.

The skills you learn and practice here; smooth transitions, enhanced braking, and skid correction, will have an immediate impact on improving the safety and skill of your street driving. Solo is an excellent way to teach car control to young drivers in a safe environment.

Solo is also a very social sport, filled with some of the friendliest people you'll ever meet. The camaraderie of the drivers is a special part of autocrossing and is profoundly satisfying.

Cars are divided into categories and classes. *Classes* separate cars by performance, so that a Ford Fiestas compete against Honda Civic, and Porsche GT3s compete against Corvette Z06s. *Categories* separate cars according to their level of preparation. Unmodified cars compete in classes in the Street category. Cars with modifications to the suspension, intake or exhaust system, or different wheels and tires compete in Street Touring and Street Prepared. Cars with engine modifications and race cars compete in the Prepared category. Cars with different engines, and open-wheel cars compete in classes in the Modified category. The complete descriptions of classes and preparation allowances are spelled out in the [SCCA Solo rule book](#).

The costs of Solo competition are reasonable because you can compete in anything from a real race car to the car you drive on the street every day. Entry fees are usually \$35-50 per driver, and two drivers can share a car.

[Sports Car Club of America](#) (SCCA) sanctioned events are insured through the SCCA, and are conducted under the watchful eyes of SCCA Safety Stewards. The rules and guidelines established by the SCCA and enforced by the Safety Stewards are what make this one of the safest motorsports.

Approximately 1,100 SCCA sanctioned Solo events, totaling more than 10,000 competitors, are held each year throughout the country. More people compete in Solo competition than any other motorsport save drag racing.

With so many SCCA regions, rules and programs may differ somewhat between the regions. For instance, some regions have an extra class for their national-caliber drivers, some regions drive in morning and afternoon heats. A quick look at a region's supplemental regulations will outline

local customs. In this handbook I will indicate with RLS (Read Local Supplementals) those topics which are covered in your local "supps."

On Being a Novice

You'll remember your first event for a long time: adrenaline that makes you shake at the start-line before your first run, and the even bigger surge of adrenaline you feel when you finish. That excitement is part of the sport, and it's why we all do this.

Don't let being a novice overwhelm you! Every driver, including the National Champions, had a first day and a novice season. Autocrossing is a skill that requires instruction and practice to see improvements. If it was easy, it wouldn't be so competitive, or so fun. The great thing about this sport, though, is that even when you're going "slow," it's still fun driving.

An autocross course may seem "busy" at first, because it's tighter than what you see on the street, and you're trying to attack it faster than you could in traffic. You'll have fun learning the sport and learning to keep the car in control as you get faster and better with more seat-time.

With that said, here are some tips to give you the right novice attitude, so you don't become discouraged:

- Your goal is to have fun! That's why everyone is here.
- Your goal for the first run is to avoid getting lost on course (see course-walking tips).
- Your goal for the rest of the day is to improve your time on each run.
- Your goal for the second event is the same as the first.
- Your goal for the rest of the season is to beat somebody (anybody!) and continue to make each run faster than the last.

At this point, you are learning a lot on each run, and you may be 10 seconds behind the class leader. That's not unusual! You're still doing OK.

Generally speaking, the veteran drivers like to help the novices. The magic words "I am a novice" will get you extra instruction from other competitors, who can critique your run. Just be careful not to interrupt a driver on a course walk, or while he or she is concentrating on going over the course in his or her head. (See the section on Solo Etiquette.)

Don't forget, there is usually a Novice Class Instructor available to answer your questions and help you get started. If you have a question or concern, ask someone!

Description of the Novice Program

The Novice Program was created to help people new to autocross have fun from the first event. If this is a new sport for you, you will have lots of questions. The Novice Chief, the instructors, and the novice handbook are here to answer them, and to show you some of the basic skills to get you started (RLS).

The Novice Class is designed to let all novices compete against each other, regardless of their car or preparation level. The PAX index is used to handicap the different classes and categories based on average performance nationwide. (There is more detail on the index in a later chapter.)

Eligibility for Novice Class (RLS)

Request novice classification when you register for the event. Novices display an N for the class markings on the car, such as 16N or 123N, etc. You will still register your car under your basic class, but you don't have to display it on your car when you're a novice.

When Novices make their runs (RLS)

Novice class drivers compete only against each other, scored by PAX indexing. Trophies are awarded for the Novice Class by the same system used for the open classes; the top third of the class.

Most importantly, remember this is a Novice *Program*, a whole package for instruction and fun. It includes instructors, the handbook, a guided course-walk and rides with experienced drivers. We want to answer all of your questions and help you have fun. Please take advantage of us.

What to Bring to an Event

This list covers everything from sunscreen to snacks to tires pressure gauges. You will probably come up with your own list of things you need at a Solo event, but this will get you started.

You must have:

- Your car (although you may share a car with someone else).
- Your entry fee.
- A valid driver's license.

You may want to bring:

- Your SCCA membership card, to get a discount on entry fees.
- A safety helmet.
- Extra air in your tires. Stop at a gas station and fill your tires to approximately 45psi-Front/35psi-Rear for a front-wheel-drive car, or 40psi all around for a rear-wheel-drive car.
- Suitable shoes for driving. The best are light-soled, with a narrow sole which does not stick out past the side of the shoe.
- Sunglasses.
- Sunscreen.
- Clothes appropriate for the weather forecast, plus a change for when the forecast is wrong.
- Rain gear / umbrella.
- A hat.
- A folding chair.

- Thermos of water or other *non-alcoholic* beverage.
- Cooler for lunch or snacks.
- Windex and paper towels.
- A pad and pencil to write down all the advice you'll get.
- A copy of the current SCCA Solo Rule Book.
- A good tire pressure gauge.
- A portable air tank or compressor.
- Chalk or white shoe polish to mark the tires.
- Painter's Tape to mark your Number and Class

What Happens at a Solo

People begin arriving before registration opens (RLS) so they can unpack their car, change tires and get ready for the day before registration begins. It is best to arrive at or before the beginning of registration so you will have time to register, tech your car, walk the course, and have ample time to talk to the Novice Chief. Arrive early so you are not rushed to complete everything prior to the start of the event.

Registration

To register you must have a valid driver's license and entry fee (usually \$35 - \$50). Online registration for events is available and links to event registration will be available on the region's website. You will also be assigned a car number for the day if you haven't pre-selected one. Upon entry, or at registration, you will be asked to sign the insurance waiver. You *must* do this to compete, and any guests you bring must sign the waiver also. Minors may need a special waiver that needs to be signed by both parents. Please check with your region if you have any questions.

Once you know your class and car number, mark your car using tape, , or use magnetic numbers if you have them. Make sure that you clearly mark your class and number (for example 44 DSN) on both sides of the car. Numbers should be at least 8 inches high, and easily readable from a long distance. If the timing and scoring people can't identify your car on the course your run will not be scored.

Technical (Tech) Inspection

Your car must pass tech inspection before you can compete. Read the tech inspection chapter to see what you'll need to do. Tech may be at one central area, or at your "pit" space (RLS).

The tech inspector will place a colored sticker on the corner of your windshield, or recommend changes to make the car pass, such as additional tie-downs for the battery or removal of loose items or hub caps if you've forgotten.

Course Walking

After tech, you will have time to walk the course. Before you go, read the chapter on course-walking tips. Course maps may be available at registration, and the Novice chief will take you on a guided walk before the drivers' meeting. Try to walk the course a few times before you go on the guided walk. If something doesn't make sense, ask for help.

Drivers' Meeting

The drivers' meeting is *mandatory for all drivers*. The event chair will hold the meeting approximately one half hour before the first car starts. Be sure to attend. This is where you will find out information you'll need to know about the course conditions, number of runs, particular safety concerns, how penalties are assessed, and how work assignments will be handled.

Your Runs

You will usually have a minimum of three timed runs, weather permitting. Depending on the event, you may get as many as five or six timed runs.

Once you are in grid, you will follow the grid martial's direction, and line up to wait for the cars in front of you to launch. Then you will move up until you are on the start line. A starter will wave a green flag when it is OK for you to start. The green flag means go as soon as you are ready, and the timer will not start until you pass through the lights. Don't take too long if we are running two cars on course at once, because your start is timed to make sure you do not get too near the car already on course.

If you do get "lost" on course, take the time to orient yourself and continue. Don't head back to the start line, because you may be pointed toward another car. Just take the time to get back on course, and continue the run as a practice! If the next driver catches up, they will be red-flagged and be granted a re-run (which they'll use to its fullest potential).

If you get red-flagged on the course, please come to a complete stop immediately and follow the course worker's instruction.

Times are posted after each run. Your fastest run of the day is used to determine your finishing position.

Read the Driving Tips section for more detail about your runs.

Your Work Assignments

It's best to report for your work assignment as quickly as possible when it is time for you to work (RLS). Otherwise, some people end up working longer than others, which is no fun. The place to get work assignments will be announced in the drivers' meeting.

We try to put a novice with an experienced driver on a station if we have enough people. For a little bonus instruction, ask your co-worker to talk about the techniques of the cars on course. Read the chapter on Working to get more detail on how to call in cones and stay safe while working the course.

Course Clean-up

Once all the timed runs and fun runs, if any, are complete, everyone helps clean up the course. This involves bringing in the fire extinguishers and flags, cones and timing equipment, and storing them in the trailer. Scoreboards need to be cleaned off and the pit area needs to be checked for trash. When everyone helps, this can be completed in fifteen to twenty minutes.

The Awards

After the event, following course clean-up, everyone meets for the trophy presentation. The location for the presentation is usually announced at the drivers' meeting. The event chair and his/her assistants will give out results and present trophies to the top third of each class.

Tech Inspection Requirements

Safety Helmet: If you bring your own safety helmet, it must be approved by Snell in the current or two most recent ratings. In 2018 (and up to 2020), the following standards are allowed: SA2015, SAH2010, SA2010, SA2005, M2015, M2010, M2005, K2015, K2010, K2005, CMR2007 (Children), CMS2007 (Children). The club provides loaner helmets for people who do not have one.

Safety Belts: Original safety belts, at a minimum are required. Shoulder belts are not required, if your car did not come with them, but you must have a lap belt. Belts must be firmly attached.

Solidly Mounted Battery: The battery must be held down properly. If it can be moved at all, it will not pass. There are some additional battery requirements which may affect you if you have modified your car. The Tech Inspector will help you out with them.

Legal Tires: In Stock and Street Prepared categories, the tires must have measurable tread, and must be in good condition. Excessive weather checks or visible cord/plies will fail inspection. Tire pressures should be higher than used for the street, usually 45psi-Front/35psi-Rear for a front-wheel-drive car, or 40psi all around for a rear-wheel-drive car.

Brakes: The brake pedal must be firm, with no loss of pressure when held down.

Steering / Suspension: The steering must be tight, with no excessive play. Wheel bearings cannot have excessive play.

Hub Caps and Trim Rings: Hub caps, trim rings and wheel covers must be removed for competition, unless they are bolted to the wheel.

Loose Items in Car: All loose items must be removed from the passenger compartment and trunk. This includes the floor-mats. You may remove the spare tire and jack, but you are not required to if they are properly secured.

Fluid Leaks: Excessive fluid leaks will not pass inspection.

Numbers and Class Markings: The car numbers and class markings should be prominently displayed on both sides of the car in colors that contrast with the paint, and should be large enough to be seen easily from the timing vehicle. Numbers should be a minimum of 8" tall.

Adequate Muffler: Your car must meet any sound limit established for the event. The sound limit may vary depending on the particular site used for the event. Due to the possibility of losing

sites for noise problems, this rule is strictly enforced. (If your car is quiet enough to avoid attracting Police attention, it will most likely pass the noise requirement.)

Throttle: Accelerator pedal must have a return spring and operate freely.

You are not required to have your car registered for street use, but it must pass tech inspection.

Working Rules and Safety

Do's

Report to work promptly.

Make sure your station has adequate supplies; extra pylons, fire extinguisher, radio and red flag.

Know your area of responsibility and station number.

Make sure cones are in their proper place when you get to your station, and check them periodically during your shift.

Understand the pylon rules (Section 7.9 in the rule book). For example, pointer cones **do not count** if hit (see below), and a car is off-course (DNF for Did Not Finish) if they pass on the wrong side of a cone.

Pay attention to cars on course for accurate cone counts and your safety. It is best to watch the *back* of the car and the cones themselves to see the wobbling cone which may have left the box.

Replace cones as soon as possible, another car will be coming through in as soon as 30 seconds.

Be prepared for exposure to sun/rain, wind, heat/cold while on station

If you have responsibility for the red flag, keep it in your hand, unfurled (but not flapping) ready for immediate deployment.

Stay alert for unexpected pedestrians, vehicles, animals, etc. Safety is our first priority and is everyone's job.

Don'ts

Do not use cameras or phones while on station.

Do not sit down and do not wander away from your post.

Do not turn your back on cars on course. Safety First!

Do not red flag a car unless instructed to do so by the radio person **or** if it is an emergency. However, *if in doubt, err on the side of safety!*

Do not litter.

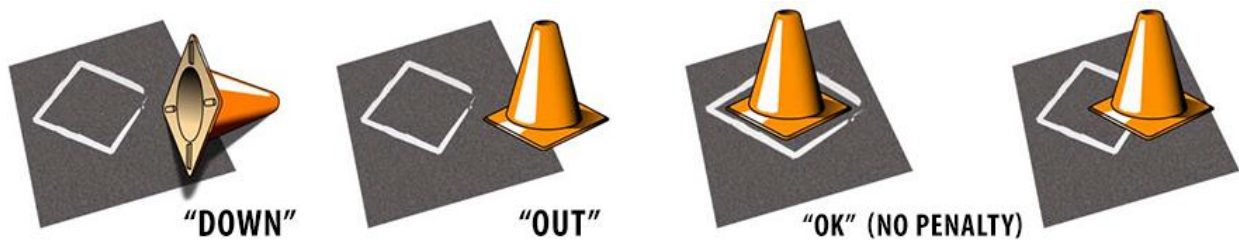
Do not pick up hot parts dropped on course because of risk of burns.

A cone penalty is given if:

- If the cone is knocked over.
- If the cone remains standing but is entirely out of the box.

A penalty is NOT given if:

- The cone remains standing and is touching the box.
- The cone remains standing and is partially in the box.
- And of course, if the cone remains standing within the box.



Car set-up Tips

Keeping things inexpensive, we'll only talk about things you can do for free, or for minimal cost. After a while, you may want to put more go-fast goodies on your car, but make sure to read the rule book, and stay legal for your category.

But also keep in mind; at this point you can go faster sooner by working on the driver instead of the car. See the course-walking and driving tips!

What you can do Today

Tires: You've already read that you should put an extra 10 to 15 psi in your tires. The reason for this is to keep your tires from rolling under during hard cornering. But how much is too much? Put chalk on the edges of your tire, in three places around the diameter, and you can see how far over the tire was going during your runs. Bleed out a little if the chalk is still showing on the tread, or add a little more if the chalk has been worn off down the sidewall. The line of worn

chalk to remaining chalk should be right at the corner of the tread and sidewall. Keep notes on how many psi you ran, and where the chalk line was, for your next event.

Remember that as you get better and corner harder, you'll need more air to compensate, so keep using the chalk at every event.

Driver Restraint: In order to have good control in driving, you, the driver, have got to stay put. So make sure your seat belt is tight and firm. Some people like to tug hard (fast) on the shoulder strap to engage the lock on the reel.

Driver Location: Most experienced drivers will agree that the best place for your seat - to give you the best control - is seat forward far enough to have your leg slightly bent when the clutch is all the way to the floor, and seat-back reclined or upright to a position that allows you to rest your wrists on the steering wheel when your shoulders are firmly against the seat.

This position allows you to run the full range of steering inputs and foot motion without stretching or moving in your seat, and can have a huge impact on your driving skill.

What you can do before the next event

A good alignment may help your car handle better. Ask around for reliable alignment shops that know autocross. We usually have one or two shops that help sponsor our club. Give them your business if you can.

Some words of caution, first. Manufacturers set their alignments to what they consider to be the most predictable and stable settings. Improving your car's turn-in for autocross may make your car twitchy on the street. So use your own discretion. To get some suggestions, though, ask a driver who has a car similar to yours in weight, wheelbase or front or rear wheel drive.

Course Walking Tips

"You must be able to keep track of the course in your head. If you can't, then you can't drive it to its fullest potential"

Josh Sirota

That quote is worth five seconds to a novice. Knowing how to walk the course is the most important step in being competitive and staying "ahead" of the course. Usually, you'll want to walk the course *at least* three times. Walk with an experienced person and ask questions. You will learn more than you might imagine about how to attack an autocross course.

Step 1) Walk the course. Your first walk will be to get the general layout, and is often a social walk. Now get away from friends and walk the course alone, concentrating on memorizing the layout. Think of it in sections, with key cones marking the turns, such as:

start straight

slalom (enter on right)

decreasing sweeper to the left

"little snake" then "big snake"

right-hand curve (look for three pointers)

"thread the needle section"

tight right, then tight left

finish

Stop every now and then and run through the course in your head, from the beginning to where you are. Get down - the course looks different from a seated position. This will give you a better picture of what the course will look like at speed.

Pace off the distance between cones in a slalom. Some course designers vary the distance, and it's good to know before you arrive whether you will have to vary your speed in a slalom. Take a note-pad if you like, and make notes such as pavement changes, camber change, bumps, sand, etc.

Make a mental note to yourself (or write it down) how far ahead you will be looking. When I walk the course, I say to myself, "OK, when I am *here* I will be looking *there*" This will help you to remember to look ahead while you are driving.

"Repeat this step over and over until the picture is perfect."

Andy Hollis - Many-time Pro Solo and Solo National Champ

How do you know if the picture is perfect? Sit down by your car and try to draw the course on a blank piece of paper. Include the key cones you want to recognize while you drive. If you can't draw the course, you will want to walk it again. Once you leave the start line in your car, you should not be spending any time figuring out where the course is.

Step 2) Plan the course. (Do this *while* walking the course again) Now decide exactly how you want to drive the course. Driving the course perfectly involves two things; coming up with the correct plan, and executing the plan correctly. If you don't have a plan, you can't possibly know where you didn't execute it correctly. It's hard to know if you did this step correctly, but step 4 is something you can work on.

The plan involves the line you will take through the cones - the quickest way through. Note, I didn't say shortest. Think about the characteristics of your car; does it corner better than it accelerates, or the other way around? That will tell you whether to slow down so you can get

through the corner in control and get on the throttle as soon as possible, or try to carry speed through to keep up the revs.

Don't forget to plan where you will be looking. There is no need to memorize *every* cone on the course, only the ones you plan to be near, the "important" ones. Look from one important cone to the next in your plan.

Step 3) In Grid. Before you run, while you are in grid, go over the course again several times in your head, executing the plan you made before.

Step 4) After the run. Sit in your car and go over your run. Figure out where you didn't execute the plan. If the plan was to be near a particular cone, and you were five feet from it, then you didn't execute the plan correctly, and a red light should have gone off in your head. Maybe you need to adjust the plan because you were going too fast in the slow parts. Decide at this point whether your next run needs to be a better execution of the plan, or a modification of the plan.

Basically, don't use the car as an excuse. You will see a big difference in your times when you drive a course that never surprised you.

Driving Tips

Seat time, seat time, seat time. That's the best way to go faster. They say, "Before you fix the car, fix the driver". That's because there are so many techniques to improve your driving, it takes seat time to learn them all, but once you do, someone without those skills would have to spend a lot of money on their car to beat you, and probably still couldn't.

Here are a few techniques to get you started. Don't try to apply them all in your first run, you'll be too busy. But read through the whole list, and then work at gaining these skills one at a time.

Look Ahead. This cannot be emphasized enough. It's so easy to forget, but makes such a big impact on your driving. It all relates to hand-eye (and eye-foot) coordination. *Look* where you want your hands to drive you, and look far enough ahead to take advantage of the feedback. If you're looking at that outside cone that you're afraid you'll hit, well, you'll hit it. If you're looking ten feet in front of the bumper, the turns will keep surprising you. Imagine looking at your feet while you are running on foot! You won't be very coordinated, and you won't have a good sense of distance or speed. Same goes for driving hard corners as you do in autocross. Look ahead. You will be *astounded* at your performance the first time you remember to do this all the way through a course.

Slow Down to Go Fast. A common problem when you're starting out is trying to take the tight sections too fast, and not staying in control. I still remember finishing a run and saying, "Well, I didn't go very fast, but it sure was smooth," only to find out I'd gone faster by a full second! Just be patient in the slow spots. They're slow spots, after all.

Brake hard in corners. Go ahead, squeeze the brakes *hard*. There's no morning coffee on your dashboard, or eggs in the front seat. Once you decide to slow down for the corner, don't waste

any time. If you find yourself at a crawl and you're not at the corner yet, why, you've just found out that you can brake later. Locking up your tires will not make you stop faster, so squeeze the brakes and let them do the work, not your tires.

Traction. Don't ask too much of your tires. For any tire/pavement pair, there's only a certain amount of traction. We'll call that 100% traction. You can use up that traction with your throttle, your brakes or your steering wheel. So if you're going into a corner, using 100% of your traction to make the turn, what happens when you ask for more traction by applying the brakes? Either you won't brake or you won't turn. Or both. Same goes for accelerating out of a corner. Ease in the throttle as you ease out of the turn. *So use full throttle and full braking only in a straight line.* This goes back to slowing down to go faster, and brings us to...

Smooth Inputs. You may have noticed that I used the phrases "squeeze the brakes" and "ease in the throttle". This is where you have to change your mind-set about inputs to controlling your car. You need to convince yourself that you can make your car respond better by squeezing the brakes hard instead of standing on the brakes, by rolling in the throttle rapidly instead of stomping on the gas, by turning the wheel quickly instead of cranking it around. Subtle, but it will show up in how often your car is in control instead of scrubbing off speed pushing around a corner. And it will take a lot of practice to become second nature.

Shift near redline. On the street, we don't usually shift near redline (high rpms). But in autocross, you want to be making the most of the power available to you. You'll learn to hear the motor as you drive and stay in a low gear longer. Most courses will be in second gear for stock cars.

Don't worry about the blinkers, wipers or horn. You're bound to hit them every once in a while. Don't let it throw you. We've all done it!

More, Later... There are many more techniques for getting better times, but start with the ones listed above. After you've learned them, you'll be ready to buy a book on autocrossing (see Recommended Reading), or attend a driver's school and learn the advanced techniques of heel/toe, shuffle steer, late apex, and more.

Go to as many events as you can. Go to the ones with the toughest competition - winning something local is fun, but losing to someone fast will probably teach you more. Attend drivers' schools in your area, or travel to another region.

Always remember to have fun, even when you are being stomped by some national hot shoe. You'll never stop learning - the best drivers will tell you this still applies after ten or twenty years! Remember, *seat-time, seat-time, and seat-time.* Nothing will make you go faster sooner. And nothing is less expensive in improving your times.

Solo Etiquette

Solo is a social sport, and most drivers are happy to give you advice and critique your runs. Ask someone with a similar car if you may follow them through a course walk. Maybe they'll even

think aloud for you (don't do too much talking yourself, or you will be making them walk again). Ask if you can ride with them. If you're not sure when to line up, go ahead and ask. Ask someone to look at the chalk on your tires to see whether you need more air. Ask someone to watch your run if they have time, and tell you what needs changing. They'll be glad to.

There are a few bad times to ask for advice, though. Here's a quick list:

When someone is walking the course alone. They're trying to memorize it.

When they are staring into space or have their eyes closed, they're probably going over their run or plan.

When they are in grid getting ready to run. They are only thinking about the course.

Try to help out. There is more work to be done than the mandatory course-work. This is an all-volunteer organization, so help is always appreciated. Luckily, this also puts you in a position to talk to other drivers, because the veterans are helping out, too. If you share the work, they'll have more time to talk to you. Likewise, showing up early will help out the registration and tech crew, and give you more time to walk the course. Read the next section on how to help, if you're looking for ideas to lend a hand.

Everyone stays to help clean up the course and pit areas. Keeping autocross sites is important to everyone, so leave your pit area cleaner than you found it.

The trophy presentation is a continuation of the event, and people talk about the course or their cars or runs. It's nice to have everyone show up, to cheer the winners, even if you didn't get a trophy yourself.

How to Help Out at an Event

(You don't have to spend money to help. The region pays for all supplies)

While you're still a novice:

Arrive extra early and offer to help during event set-up.

Help sweep the course in sandy corners.

Line the course, or mark the cones.

Corral people to help clean up, or take a walk through the pit area to pick up things left behind.

When you get more comfortable with the way things run:

Learn how to tech cars.

Learn timing and scoring.

Be a novice helper. You can go over course-work with the novices while the novice chief takes his or her course walks.

Learn how to set up timing.

Get your safety steward's license.

Get involved! It's fun to be a part of the action.

The Rule Book and Classes

The official SCCA Rule Book is available from scca.com. It will tell you about legal modifications, rules on re-runs, and many other topics.

Almost all un-modified cars start out in the Street category. There are a few exceptions, but most people can't afford them. From Street classes, each car moves to a designated Street Prepared or Prepared class when it has modifications made to it, and from there, with more modifications, on to a Modified class.

Sometimes cars in different Street classes will end up in the same street prepared class once they have go-fast goodies added. The reason is that modifications may equalize the cars.

PAX Index

The PAX index, calculated each year, is a commonly used handicapping system for comparing times of cars which are not in the same class. The index is composed of data from across the country, and tries to take the driver out of the equation and compare only the cars.

These indices are based on cars prepared to the limit of the rules and driven by top drivers.

The index is multiplied against your run time to provide the time you would have had if you had been in an A-Modified (the "fastest class") car. It is interesting to compare the index of one class to another to see how much time you should gain if you prepared your car to, for instance, Street Prepared rules. Look in the rule-book to find out where your car would be if you made modifications. You can also see that alphabetically, higher cars are not necessarily faster.

Current PAX Index for 2018:

SS	0.817	SSP	0.852	XP	0.884	AM	1.000
AS	0.814	ASP	0.848	BP	0.860	BM	0.956
BS	0.808	BSP	0.846	CP	0.847	CM	0.890
CS	0.805	CSP	0.857	DP	0.858	DM	0.895
DS	0.794	DSP	0.835	EP	0.850	EM	0.894
ES	0.787	ESP	0.828	FP	0.863	FM	0.904
FS	0.797	FSP	0.819	HCR	0.812	FSAE	0.958
GS	0.786						
HS	0.781	SSR	0.838	SMF	0.839	KM	0.928
HCS	0.791			SM	0.853	JA	0.855
SSC	0.806	CAM-C	0.816	SSM	0.871	JB	0.825

		CAM-T	0.807				JC	0.718
STS	0.810	CAM-S	0.831					
STX	0.813							
STR	0.823							
STU	0.824							
STP	0.815							
STH	0.811							

Championship Points

The Championship Series is the system for year-end trophies. The champion of each class is the driver with the highest number of points at the end of the season for that class.

Calculations for points and eligibility criteria are outlined in the current year's supplemental regulations.

Usually, the points are awarded based on how you finish, or place, in your class. Often, you must be a member of the SCCA to compete for Championship points, and you must compete in at least half of the events in the season. Most regions count your best finishes in 2/3 of the events, so it helps you to drive in as many events as possible.

SCCA Membership

Membership in the Sports Car Club of America is a great investment. You receive discounts on your entry fee at any region's Solo events, and you receive the monthly SCCA magazine *Sportscar*. As a member, you may hold office and have a voice in running the club.

Membership is required for year-end Championship trophies. It is also required to compete in Divisional, National Tours, Pro Solos and the National Championships.

Beyond the Local Region

Your region is only one of many in a nationwide SCCA Solo program and independent autocross organization network. Expert autocrossers will all tell you that the most important factor in improving your skills is seat-time, seat-time, and seat-time. Most of the local "hot-shoes" (everything's relative) can be seen at many events besides their own. But going beyond a local event for the first time can be confusing and a little intimidating. So here's a summary of what

those other events are like, as a way of introduction. SCCA Membership is required for any event above the regional (local) level.

Nearby Regions: Often a great place to enjoy an event with more cars and deeper competition, and, in some cases, larger lots and faster courses. A one to two hour drive to these events will give you an opportunity to tune your skills, and sometimes steal the trophies from the locals. You'll see fields of 25 to 200 drivers, depending on the region and event. Some regions have an annual two-day event where winners are determined by combining the best time for each day.

Far Away Regions: Look in autocross publications such as [Sportscar magazine](#) or [MotorSportsReg.com](#) for dates and locations of events. I've met some great people and driven on some exciting courses all over the country. I haven't been anyplace yet where I couldn't find an event within a two-hour drive.

Divisionals: Are hosted by each of the SCCA divisions. Your own divisional and neighboring divisions are worth the drive. These two-day events are offered to determine the champions of each division. Winners are determined by combining the best times for each of the two days of competition.

National Tours: This sponsored, nationally run series is held at sites across the country. It is designed to be a traveling look at National Championships. A two day event; the best times for each day are combined to determine the winners. This is a great opportunity for newer drivers, as a driving school is often held the day before, with national champions as your instructors.

National Championships: *The largest* U.S. motorsports event, held each year in September. Our current home for the nationals is Lincoln, Nebraska. This is the Mecca of autocross, and for any car enthusiast, a must-see. Each driver competes over two days, but if you have the time, stay for the whole show, as it takes four days to get through *nearly 1,200* drivers.

The paddock area is a treat to tour, with some exotic cars, unlikely cars, classic cars and their drivers. Even knowing that your first trip is unlikely to yield a trophy, this is a delightful event includes award banquets, and more bench-racing than you've ever experienced.

Pro Solo₂: A twist on the Solo format, the Pro Solo₂ features two cars simultaneously on mirror-image courses, starting from a drag-strip-style light "tree." The courses are sometimes shorter, forty seconds or so, but each driver gets six attempts on each "side" over the course of two days. Pro Solo₂ combines the driving skill of Solo with the wheel-to wheel thrill of drag racing.

Winners are determined in two ways, by class, during the event, and by single elimination runoff for the "Challenge."

Pro Solo₂ Finale: This final event of the Pro Solo₂ series. Since most (all?) of the competitors also drive in Solo National Championships, they are held in the same week in Lincoln.

Back to Reality

You've had a blast driving in the Solo event. The adrenaline was high; you're ready for another event. You can't wait to start improving your skills. Before you leave, lower your tire pressures to recommended levels for street driving. Don't forget to check when and where the next Solo event will be held! Then spend some time reading through this handbook again before the next event.

Driving in Solo is a real thrill. But don't forget when you leave the course that you're in traffic again. Take your new car control skills with you for emergencies, and obey all road laws. Save your spirited driving for Solo, where it's legal!