

How to drive like a professional race car driver.



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What makes a **GOOD DRIVER** is good **CAR CONTROL**.

Learn how to:

- Position your body for maximum control.
- Understand vehicle dynamics & weight transfer so you can be a pro in any situation.
- Do a 180 or 360 in both forward and reverse.
- Proper accident avoidance techniques.
- Read the road, types of corners and the fastest line to take.



EYES:

Always focus ahead, where you want to go. (Not where you are right now - the faster you go, the more important this is.)

HANDS:

- Hand position at "3" and "9" (like on a clock - this gives you maximum leverage)
- You should be able to rest your wrist on the top of the steering wheel, with your arm slightly bent.

LEGS:

You can press the pedals all the way, and your legs are slightly bent.

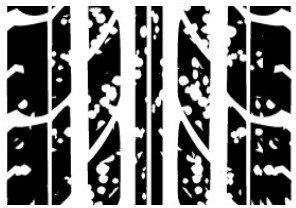
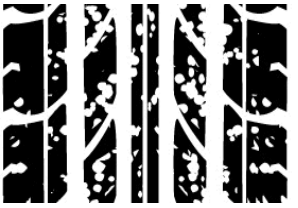
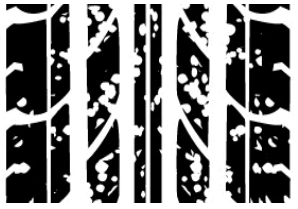
Seat belt: snug.



TIRE PATCH:

The tire patch is where the tire touches the road - it's a small area.

The size of the tire patch, and the amount of weight determine how much grip the tire will have for you to control.



Understanding weight transfer = car control.

BRAKING:

Weight transfers to the Front:



ACCELERATING:

Weight transfers to the Rear:



TURNING RIGHT:

Weight transfers to outside front tire:



Where the weight is, is where the most control is.



UNDERSTEER:

Understeer is a front wheel skid.

The front wheels have lost traction and you cannot steer the car.

(Lift off the throttle to shift weight to the front.)

OVERSTEER:

Oversteer is a rear wheel skid. The rear wheels have lost traction, and the back end of the car is swinging around to the side.

(Steer in the direction of the skid, when the back end begins to correct, steer towards center to keep the correction skid from whipping around to the other side. Don't let off the throttle or apply brakes until the skid is under control - the weight transfer of the braking will make the oversteer worse.)

SPIN 180 - Forward:

- Lift off the gas. (transfers weight to the front)
- Lift the hand brake to lock the rear wheels, and turn the steering wheel 90 degrees.
- When the back end starts to come around, release the hand brake, and straighten the steering wheel back to center.
- Don't move - the car will swing around and stop with you pointing in the opposite direction.

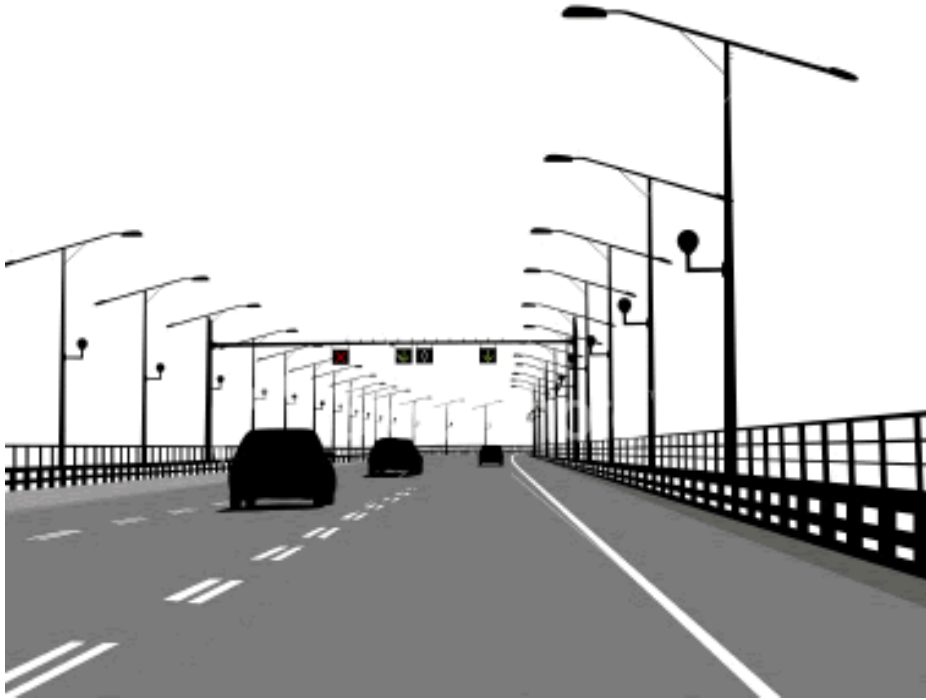


It's easiest to practice spins in the wet or snow - it will be easier on your tires and you need less speed to accomplish the move.

SPIN 180 - Backward:

- Drive backward, fast.
- Lift off the gas, lift the hand brake, and turn the steering wheel all the way to one direction until it stops.
- When the front end starts to swing around, release the hand brake.
- Don't move - the front end will swing around, and stop with you pointing in the opposite direction. (it may go too far, but with the steering wheel turned, the car will rock back into place.)

360: Do a 180 forward, then after the car has almost come around 180 degrees, then do a 180 backward.



Threshold braking:

The brakes are the most powerful system on the car - you can brake about 2 to 3 times faster than you can accelerate.

Threshold braking means that the brakes are stopping the car with the maximum traction that the tires can give, without losing traction. This is what a Race Car driver does when braking before a turn.

Most cars have ABS brake systems - that do threshold braking automatically. If you have ABS - just hit the brake pedal hard, and don't let up: let the ABS system do the work for you.

Accident Avoidance:

The fast lane change.

Something happened ahead of you: car stopped suddenly, animal jumps onto the road, etc.

How to safely, and quickly move your car over to the side and out of the way:

- Lift your foot off the gas pedal, and turn aggressively to the safe direction. (*This will transfer weight to the front allowing for maximum turning traction.*)
- After you are in the other lane, now: Put your foot back on the gas pedal, and turn the steering wheel so the car will go back to straight ahead. (*This will transfer the weight back to neutral - keeping the rear end from spinning around, and get the car going straight again.*)



How to take the right line and achieve maximum speed.

The most important turn is the one that leads onto the longest straight away.

KEY: You want to have as much speed coming out of a corner as possible. The earlier that you can apply gas, the faster you will go down the straight.

PARTS OF A CORNER:

Brake Point:

Brake point is where you start to brake.

Turn In Point:

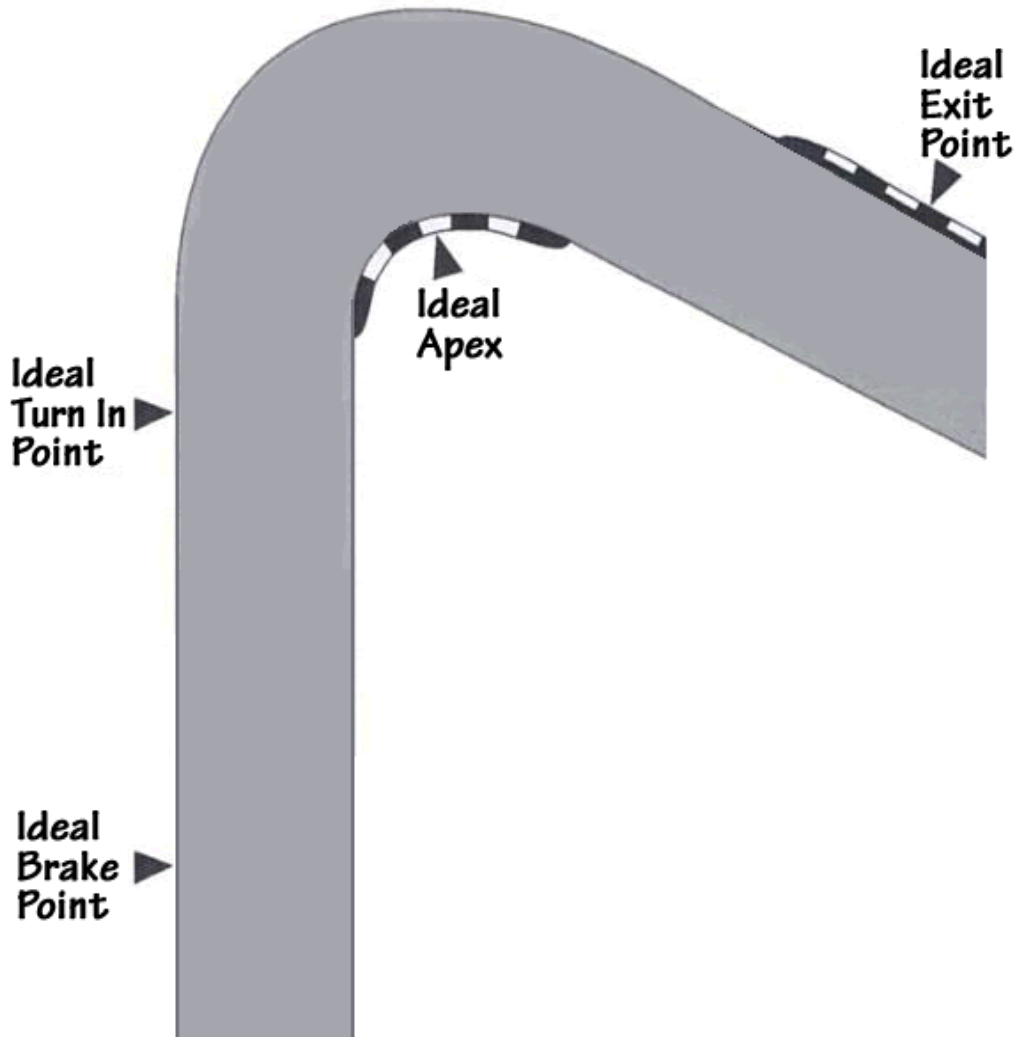
Turn In Point is where you turn the steering wheel to make the turn. Ideally, you turn the steering wheel in one motion - aiming for the apex, and hold it in that position until you unwind the steering wheel back to center at the exit.

Apex:

The Apex is where the car is closest to the inside of the corner.

Exit Point:

You finished the turn, and you are full throttle.



KEY to fast driving: you must have reference points: exactly where you start your braking, exactly where you turn in, etc. When you look ahead you are looking at your reference points.

Saint-Beaurne

Paul Ricard Formula One
Race Track, FRANCE



SLOW CORNER:

BRAKE POINT: Start braking.

TURN IN POINT: Turn steering wheel and trail off the brakes. You are gently trailing off the brakes from the Turn In point until the Apex. This additional braking, will help make a gentle oversteer (the back end of the car gently slides around a tiny bit), which helps you get around the corner.

APEX: You start applying throttle.

EXIT: You are full throttle.

MEDIUM CORNER:

BRAKE POINT: Start braking.

TURN IN POINT: Turn steering wheel and transition from brakes to throttle. You have partial throttle until the Apex. You want the car to be settled here, no oversteer or understeer.

APEX: Continue with even throttle or apply more throttle - depending on the corner.

EXIT: You are full throttle.

FAST CORNER:

BRAKE POINT: No braking.

TURN IN POINT: Turn steering wheel and keep full throttle.

APEX: Continue with full throttle.

EXIT: Continue with full throttle.



Go Practice.

You now have all the basics.

If you master these ideas, and you practice - you will be a GREAT driver.

Remember to drive safely and obey all speed laws when driving on public roads.