



Do the Basics Well!

NNJR Track Side Classroom Series









Disclaimer

The techniques shown here have been compiled from experienced sources believed to be reliable and to represent the best current opinions on driving on track. But they are advisory only. Driving at speed at Lightning, or any other track, requires skill, judgment and experience. These techniques assume the reader has high performance driving knowledge and applies them as applicable to their level of driving experience.

High-performance driving can be very dangerous, carries inherent risks and may result in injury or death. NNJR and PCA make no warranty, guarantee or representations as to the absolute correctness or sufficiency of any representation contained herein. Nor can it be assumed that all acceptable safety measures are contained herein or that other or additional measures may not be required under particular or exceptional conditions or circumstances.







- Do the Basics Well
 - Why does it matter?
 - What are the "basics"?
 - How to improve?



Why Focus on the Basics?



- Ross Bentley: People ask me what the main difference is between the best and the rest.
 - 3 things make the difference
 - 1. They focus on the basics. The advanced stuff is just doing the basics better.
 - They're committed to learning. They make learning an objective. They know the more they know, the better they will get.
 - 3. They prepare.

Speed Secrets Weekly 191

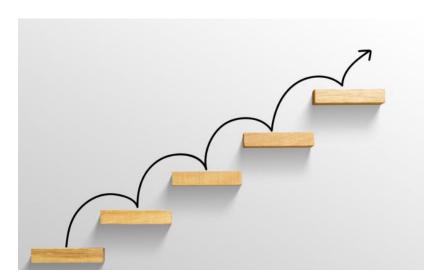


What Are the "Basics"?



Prerequisite: A Learning Mindset

- Seating Position and Mirrors
- Line
- Vision
- Use of Controls
- Situational Awareness
- _____
- Consistency
- Learning focus / self awareness

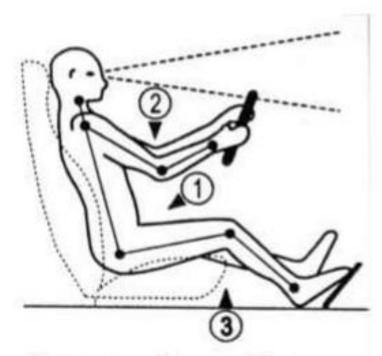




Seating Position



Preparing to drive on the track:



Proper seating position



Seating



- Are you comfortable in the car?
- Can you easily see ahead? Behind? Both sides?
- Good control with your shoes?
 - Hands? Gloves?







Start in correct seating position!

- Rearview Mirror
 - Adjust to see entire rear window
- Left Mirror
 - Rest head against driver's window
 - Adjust to <u>barely</u> see left rear fender
- Right Mirror
 - Lean right so head is under rearview mirror
 - Adjust to <u>barely</u> see right rear fender

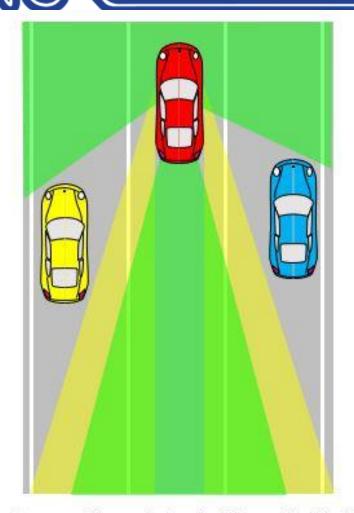




Proper Mirror Adjustment



Common



G. Plazer, "The Geometry of Automotive Rearview Mirrors—Why Blind Zones Exist and Strategies to Overcome Them," SAE Tech. Paper 950601 (1995).

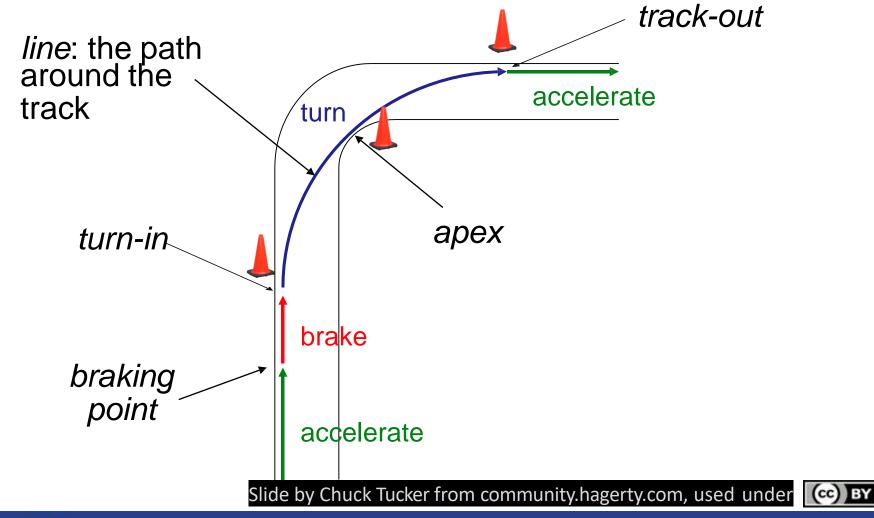




The Line: Basics of Track Driving



Use <u>reference points</u> to drive a consistent line









The Line: Basics of Track Driving



Use an ABC rhythm

- Accelerate on the straights
- Brake while going straight, before the corner
- Corner (Turn) relax the brakes and turn
- Accelerate
- Brake
 — — → some corners: just use less gas (lift)
- Turn
- Accelerate
- Brake
- Turn

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The Line



- Which corner is coming up next?
 - Have I memorized the corner numbers/names?
 - Can I describe each one?
- Do I have a clear mental picture of each corner?
 - Can I visualize each corner?



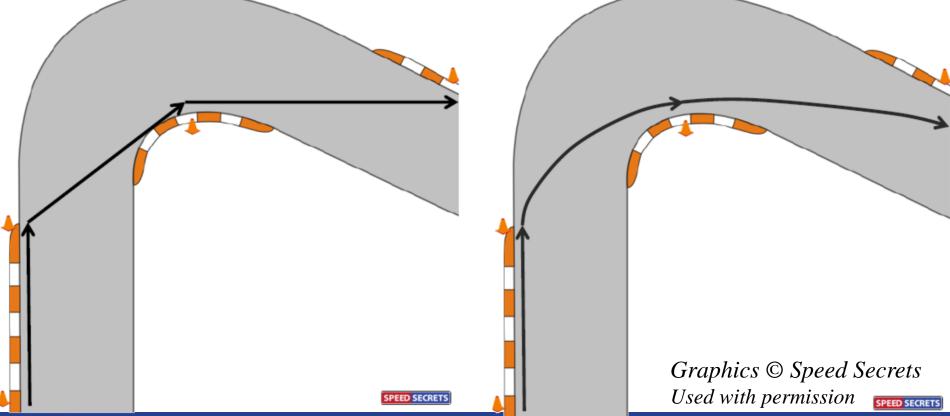


How We "See" a Corner



- A curve requires 3 points (basic geometry)
 - Our eyes have to "see" the whole corner

When we see the whole corner, we have (more) confidence





Vision: How to "Look"?



Focus

Central vision, 1 second or more

Peripheral

Side/surround vision

Glance

Central vision, 1/2 second or less

Mental

Your "mind's eye"

Source: Central Indiana PCA



Example



Chuck Tucker, Cayman GT4, 09/10/2017 Putnam Park, Lap 7/15 Sector – Sector 1 Total Time: Lap Time: 0:08:19:8 00:08:3



Glance

Mental

Focus

Peripheral





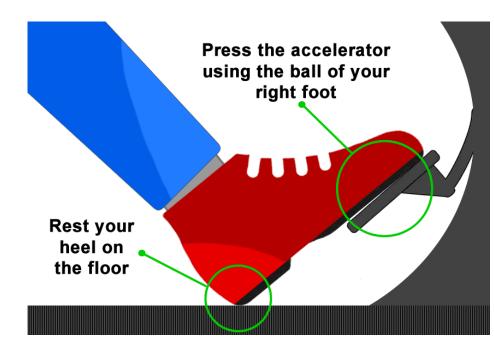
Use of Controls



- Steering, Gas, Brakes
 - ""Wind", "Unwind", "Squeeze", "Release", "Relax"
- Never rush

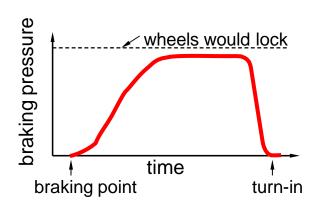


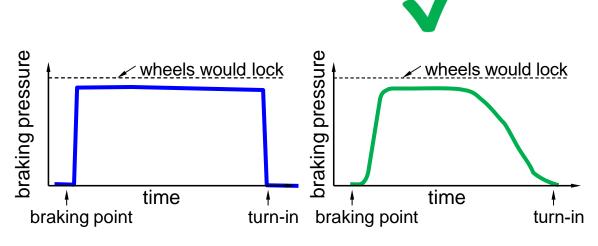




Hard Braking Zone







smooth on, quick off

full strength, full time

on hard, then ease off

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Situational Awareness

- Flags!
- Traffic!
- Track conditions
- Car behavior and speed





Flags: Essential for Safety



GREEN FLAG:	Track is open and the course is clear. If no flag is displayed at a station, this is a green condition.	BLUE FLAG:	When pointed at faster cars behin Check your mirronext authorized
YELLOW FLAG:	Stationary - There is a potential hazard near or on the track ahead of you. You must exercise caution until you pass a clear flag station. Slow down. Passing is not allowed while the yellow flag is displayed. This flag will also be displayed for the first lap of each run. Waving - There is a hazard immediately in front of you.	WHITE FLAG:	This means that moving (e.g. with circuit. Be alert.
	It will require you to alter your course or take evasive action. Immediately slow down and be prepared to take appropriate action as necessary. Be aware of the cars around you as you do this	RED FLAG:	Something affect occurred. Stop of edge of the track look in your mirrocars around you.
YELLOW/RED STRIPED FLAG:	This striped flag indicates a surface condition - take care. It indicates that a slippery condition exists or		of the flag signal directed by a flag
Ш	that debris is present on the course. This flag is displayed standing.	CHECKERED FLAG:	The run group is slowly, cool engin
BLACK FLAG:	If directed at your car: There is something wrong with your car or your driving. Immediately pull into the pits and see an Event Official. If stationary at more than one station: all cars are to pull into the pits at their first opportunity. No passing.	 	paddock.

BLUE FLAG:	When pointed at you, this flag indicates that there are faster cars behind you that should be allowed to pass. Check your mirrors and give passing signal(s) at the next authorized passing area.
WHITE FLAG:	This means that an ambulance, service vehicle, or slow moving (e.g. with mechanical trouble) car is on the circuit. Be alert.
RED FLAG:	Something affecting the safety of the event has occurred. Stop quickly and safely by moving to the edge of the track surface (off line) immediately but look in your mirrors before braking: Be mindful of the cars around you. Do not drive around to see the cause of the flag signal. Remain stopped with your car until directed by a flagger to proceed.
CHECKERED FLAG:	The run group is over. Proceed around the track more slowly, cool engine and brakes, return to pits and paddock.





Passing!

MINISTER AND SERVICE STATES

- Only in designated straights
- Only with a signal

Both drivers know exactly what to expect





Situational Awareness



- Am I ever surprised by a car in the mirror?
- Is there a train behind me?
- How soon do I see each flag station?
- Do I check each station? Even in traffic?
- Do I set up passing situations?
- How close to the limit am I? i.e. My limit
 - In each corner
- How soon do I recognize an error?
 - "Go/No-Go"



Summary: Do the Basics Well



- Prerequisite: A Learning Mindset
- Seating Position and Mirrors
- Line
- Vision
- Use of Controls
- Situational Awareness



The Big Idea...

- ... is there is no single, big idea
 - Progress is the sum of many small improvements
 - Any gain you can repeat—is excellent progress
 - As you get better, you go after smaller gains



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Questions?



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