

Do the Basics Well!

NNJR Track Side Classroom Series
Lightning 1, April 23-24, 2022



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.

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- Do the Basics Well
 - Why does it matter?
 - What are the “basics”?
 - How to improve?
- Lightning Turn by Turn

- 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.*
 2. 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

NNJR The Big Idea...



Source: Pixabay, CC0 Public Domain

- ... 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

Slide by Chuck Tucker from community.hagerty.com, used under



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Slide 5



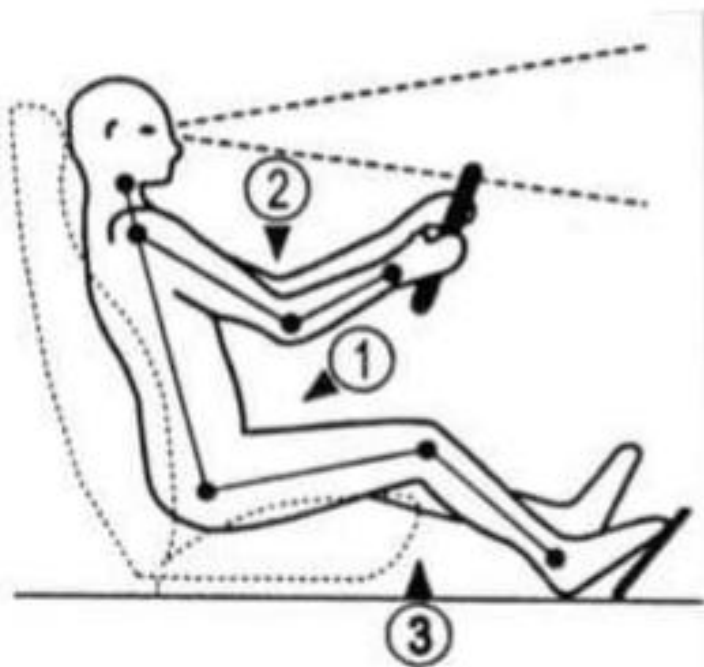
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- Seating Position and Mirrors
 - Line
 - Vision
 - Use of Controls
 - Situational Awareness
-



- Consistency
- Learning focus / self awareness

Preparing to drive on the track:



Proper seating position

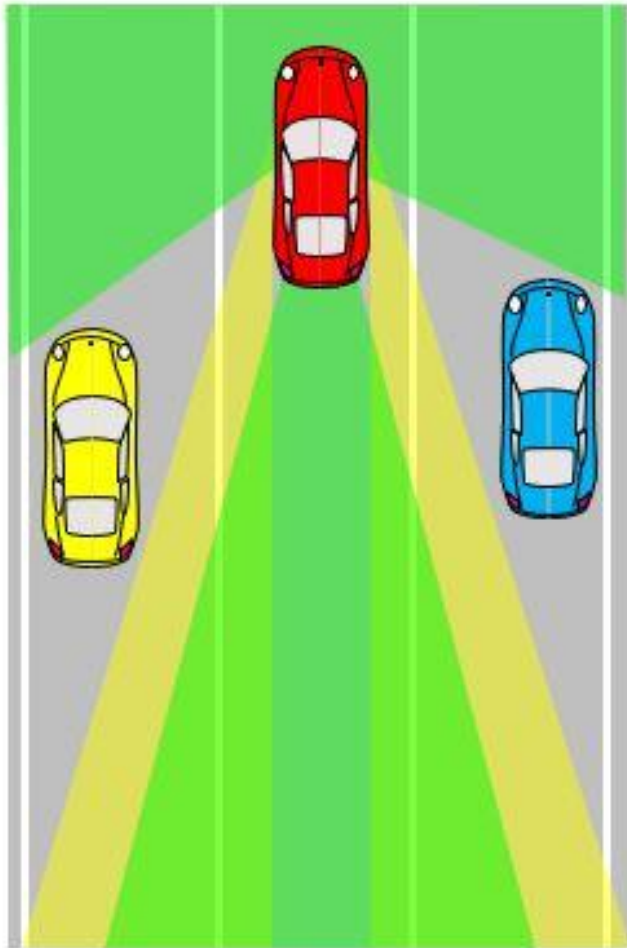


Proper hand placement

- **Start in correct seating position!**
- **Rearview Mirror**
 - Adjust to see entire rear window
- **Left Mirror**
 - Rest head against driver's window
 - Adjust to barely see left rear fender
- **Right Mirror**
 - Lean right so head is under rearview mirror
 - Adjust to barely see right rear fender



Common



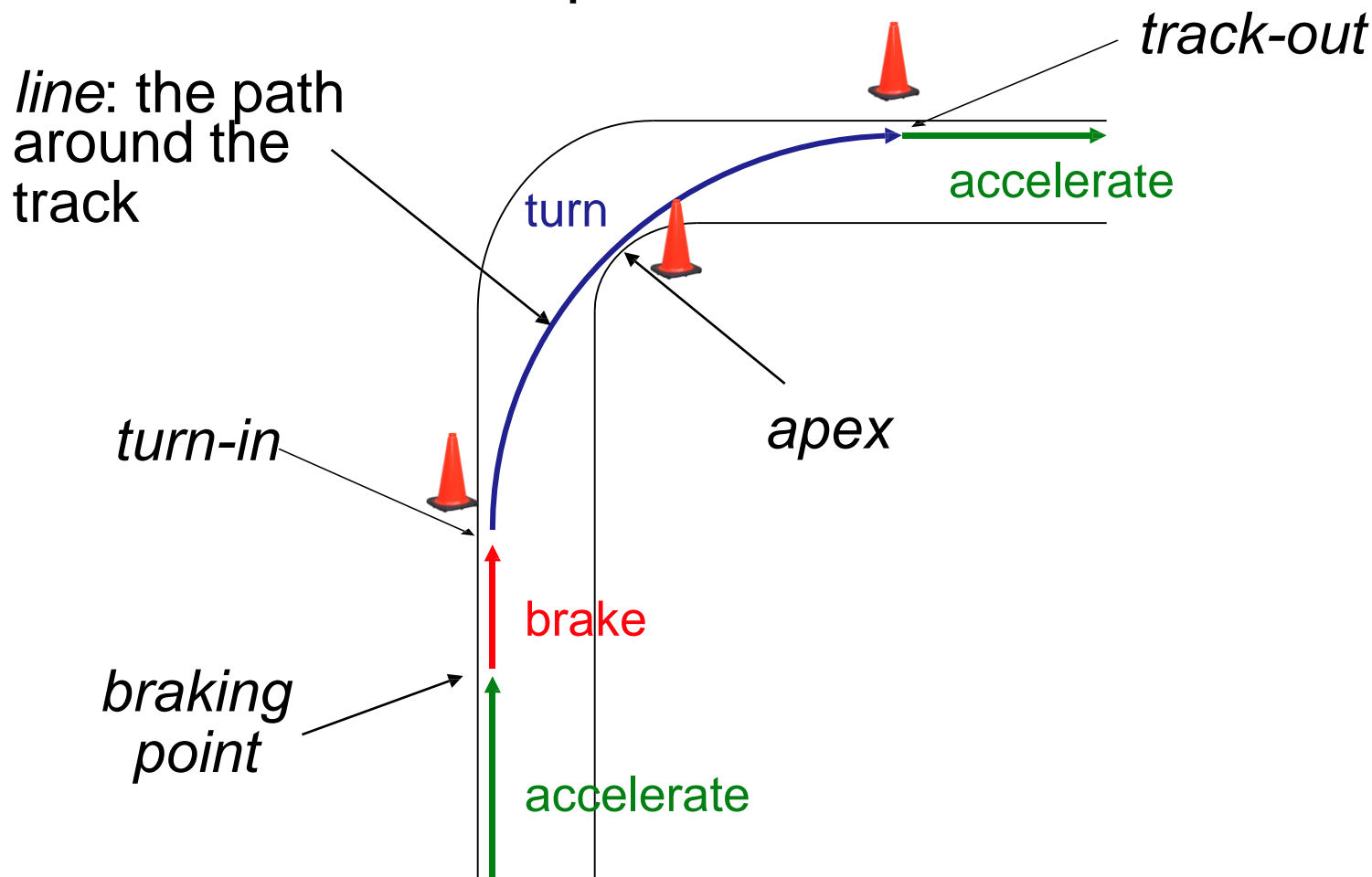
G. Plazer, "The Geometry of Automotive Rearview Mirrors—Why Blind Zones Exist and Strategies to Overcome Them," SAE Tech. Paper 950601 (1995).

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

NNJR The Basics of Track Driving



- Use reference points to drive a consistent line



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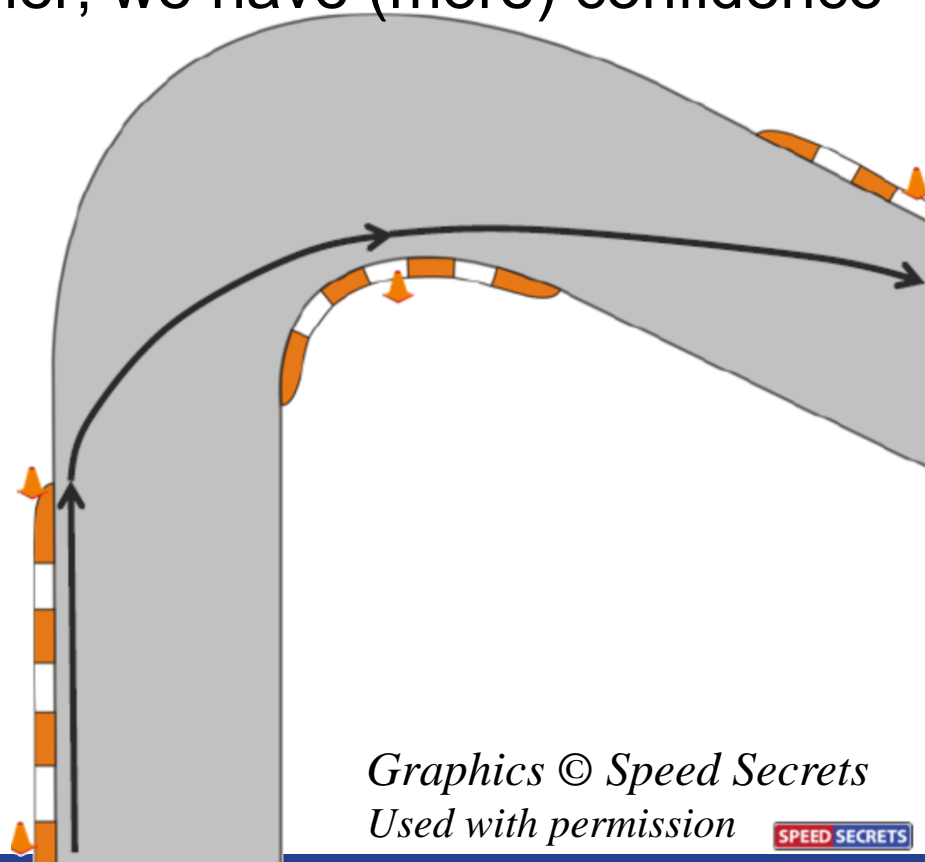
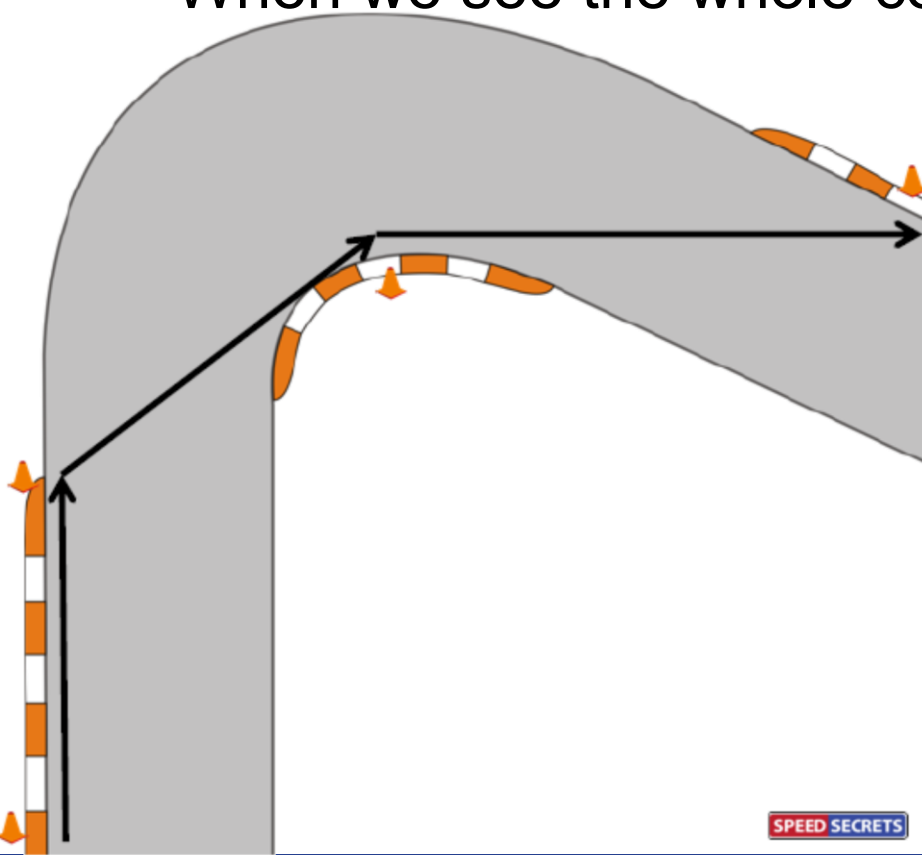
- Which corner is coming up next?
 - Have I memorized the corner numbers/names?
 - Can I describe each one?
- Do I have a clear mental picture of each corner?
 - Can I visualize each corner?



NNJR 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



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- **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

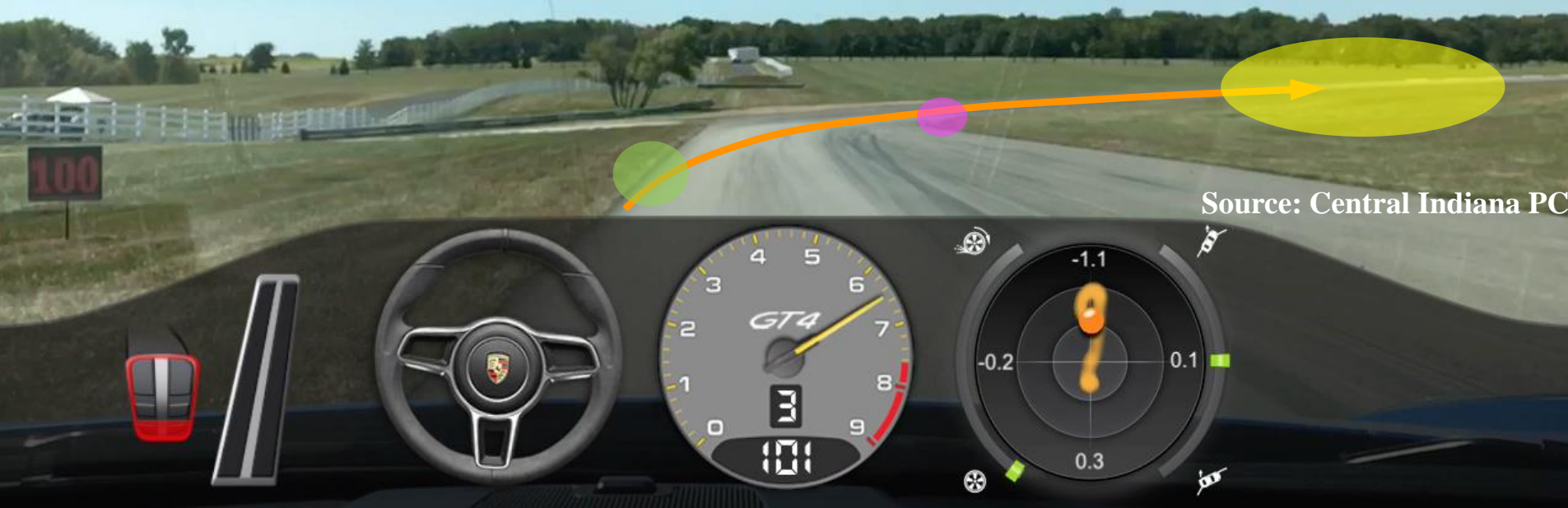
NNJR Example



Chuck Tucker, Cayman GT4, 09/10/2017
Putnam Park, Lap 7/15
Sector – Sector 1

Total Time: 0:08:19.8
Lap Time: 00:08.3

Glance
Mental
Focus
Peripheral



Source: Central Indiana PC



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Slide 16

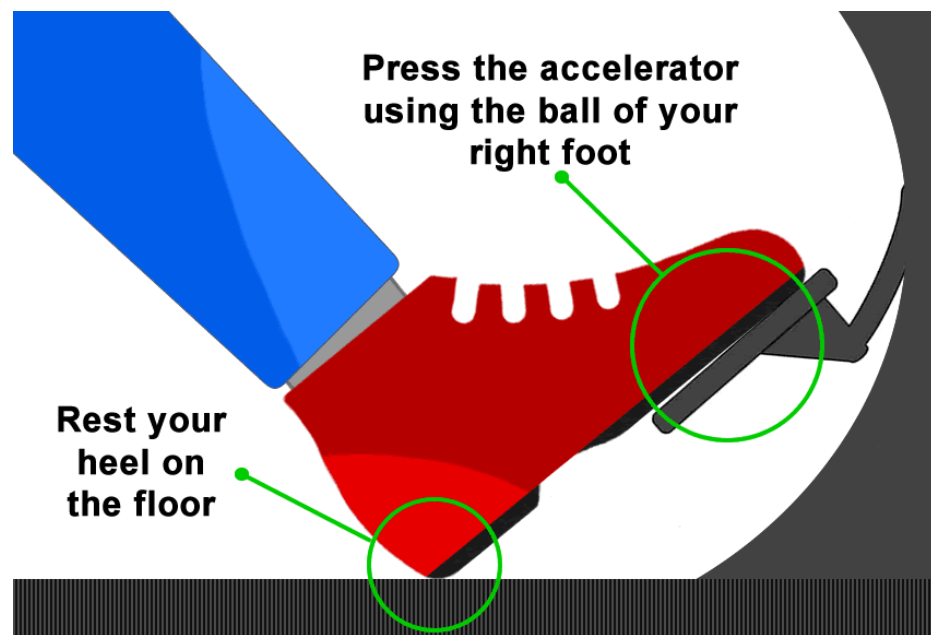


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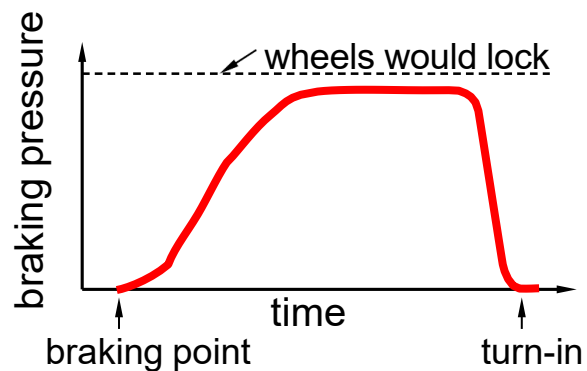
- Steering, Gas, Brakes
 - “”Wind”, “Unwind”, “Squeeze”, “Release”, “Relax”
- Never rush



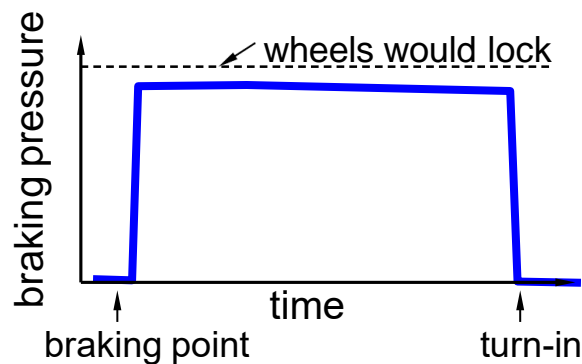
Proper hand placement



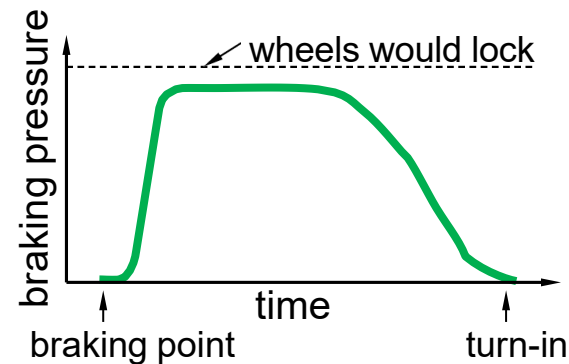
NNJR Hard Braking Zone



smooth on, quick off



full strength, full time



on hard, then ease off



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- 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 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.
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. 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	WHITE FLAG: 	This means that an ambulance, service vehicle, or slow moving (e.g. with mechanical trouble) car is on the circuit. Be alert.
YELLOW/RED STRIPED FLAG: 	This striped flag indicates a surface condition - take care. It indicates that a slippery condition exists or that debris is present on the course. This flag is displayed standing.	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.
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.	CHECKERED FLAG: 	The run group is over. Proceed around the track more slowly, cool engine and brakes, return to pits and paddock.



NNJR Passing!



- Only in designated straights
- Only with a signal
- Both drivers know exactly what to expect





- 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



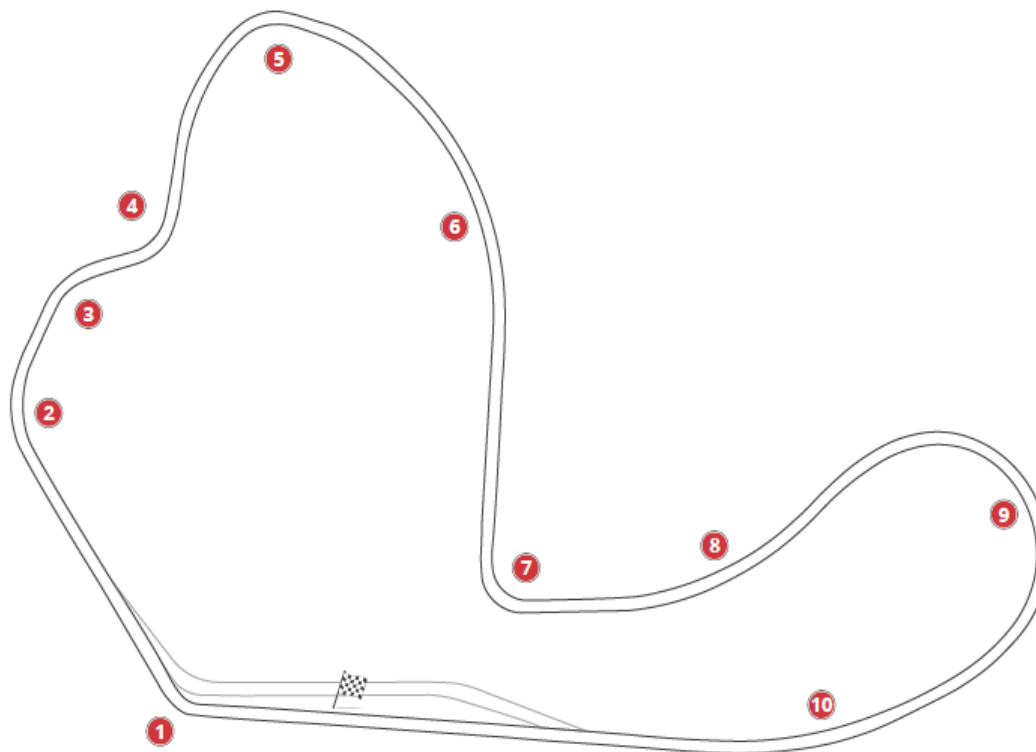
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NNJR Track Map for Your Notes



NJMP - LIGHTNING



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