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# HIGH PERFORMANCE AND INTERMEDIATE GRIP LIMIT COURSE

**Location/Venue:** Millbrook Proving Ground

An exclusive day at The Millbrook Proving Ground, Bedfordshire is a unique facility designed for the testing of vehicles by the motor industry. It is not open to the general public, so your access can only be via motor industry approved professionals.

## **Course Duration and Overview:**

Our aim is to progress your knowledge of limit handling, high speed driving and vehicle dynamics to a more advanced level.

Arranged as a 1 or 2 day course depending on experience and is designed to analyse grip limit driving and to understand the vehicle on it's limit of adhesion and to explore the vehicle dynamics.

Training to be provided to the highest quality and will be carried out in a safe track environment with the guidance of a fully qualified and highly experienced instructor, who has spent over 25 years in motor sport preparation, vehicle evaluation and management of this specialist motor industry. You will gain knowledge from a professional who has experience in teaching industry standard advanced driving techniques both on the road and on Proving Grounds not only in the UK but extensively in Europe, including The Lausitz Ring race and test track in Eastern Germany as well as the infamous Nurburgring (Nordschliefe).

## **Millbrook facilities to be used:**

- *High Speed Bowl*
- *Mile Straight*
- *Steering Pad*
- *Handling Circuit*
- *Alpine Route*

**Vehicle used:** Subaru Impreza – track prepared  
**Training ratio:** 1 : 1 or 2 : 1

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## Course Content

**Introductions:** Sign in and Health & Safety briefing for the Proving Ground, the vehicles to be used and to conduct a track tour

**Overview of Aims and Objectives** for the day stating order of the facilities to be used.

**1. Facility: High Speed Bowl**



**Recap:**

**Aims and Objectives**

To experience high speed driving at speeds in excess of 120mph in order to understand steering responses at various speeds and to develop greater awareness and forward planning skills. Limit points.

To understand accident avoidance techniques at higher speeds over 70mph and as a Single Lane Change and Double Lane Change, in order to experience steering responses and vehicle behaviour. (Lanes 1 & 2)

**2. Facility: Mile Straight**

**Recap:**

Threshold braking  
Pedal exit



**Aims and Objectives**

To understand Heel and Toe gear changing techniques

To be able to evaluate the vehicles performance when braking, accelerating, steering with the effects on suspension, tyres and brakes at speed.





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**3. Facility:                    Steering Pad**

**Recap:**            Vehicle dynamics and Understeer



**Aims and Objectives**

Coned area J Turns – cornering techniques highlighting smoothness and control in preparation for the Handling and Alpine circuits.

*In car presentation on vehicle behaviour on grip limit. Explanation followed by a demonstration.*

**4. Facility:                    Handling Circuit**

**Recap:**

Advanced principles cornering techniques using a safe system on approach and when negotiating bends.

Positioning for maximum safety and stability  
(‘The Correct Line’, Braking Points, Apex/Clipping points, Corner Exit Points and Single Input steering).

**Aims and Objectives**

To enhance Forward planning skills especially for the exits at higher speeds using the Subaru.

To improve skill and vehicle control when cornering with a timed element against the clock.

*Demonstration when required followed by practice*





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**5. Facility: Alpine Route**

**Recap:**

Advanced principles of cornering techniques using a safe system on approach and when negotiating bends.

Positioning for maximum safety and stability  
(‘The Correct Line’, Braking Points, Apex/Clipping points, Corner Exit Points and Single Input steering).

**Aims and Objectives**

To identify the correct cornering line and ‘drive it’ to the grip limit of the vehicle.

To enhance Forward planning skills especially for the exits at higher speeds using the Subaru Impreza.

*Demonstration with commentary given.*

**Debrief:**

