

# RAC Automated Vehicle Trial

RAC, with the support of the Western Australian State Government and the City of South Perth, is trialling a fully driverless, electric shuttle bus, in Australia's first Automated Vehicle Trial.

## Why automated vehicles?

Automated vehicle (AV) technology is rapidly advancing and is the single biggest disruption to the mobility sector since the invention of motor cars. Many vehicles now have built in AV technology and are becoming increasingly automated, requiring less driver intervention.

According to industry standards, there are six levels of automation from Level 0 (No Automation), to Level 5 (Full Automation) where the vehicle can perform all safety critical functions and other than setting the destination, no driver intervention is required.

0	<b>No Automation</b>	<b>The Past:</b> Everything is done manually, there's not even power assisted steering!
1	<b>Driver Assistance</b>	<b>The Past:</b> You complete the majority of the driving task, with assistance for either steering, acceleration or braking.
2	<b>Partial Automation</b>	<b>Now:</b> Some automated functions for steering, acceleration and braking - but your hands must still be on the wheel at all times.
3	<b>Conditional Automation</b>	<b>Now-2020:</b> Hands off the wheel! All aspects of driving are automated - but you must be ready to take back control when prompted.
4	<b>High Automation</b>	<b>2020-2025:</b> Drivers are no longer needed! You can take back control if needed, but the car will work fully autonomously.
5	<b>Full Automation</b>	<b>2026-2030:</b> We won't even need a steering wheel.

## Why are we running this Trial?

In a purposeful trial, RAC aims to understand how AVs operate and consider their likely impacts. The Trial's three aims are:

1. Increase the understanding about the potential impacts and opportunities from the advent of AV technology;
2. Give Australians the chance to see AV technology, and eventually use and experience it; and
3. Further help Australia prepare a roadmap for changes to support and safely transition to AV technology.

AVs could deliver many benefits, including improved mobility and independence for many, and reduced crash risk and

severity by removing human error from the driving task. Increasing automation also raises many potential considerations that will need to be explored. A well-defined roadmap for how we plan and manage the challenges of regulating AV technology has never been more important to ensure the safe transition of AVs on our roads.

## How is the Trial being undertaken?

Our Trial involves three stages designed to test and evaluate AV technology in a variety of settings and scenarios, involving increasing levels of complexity, then, interactions with road users. The Trial was officially announced on 9 February, 2016 and launched on 13 April when the vehicle arrived in WA. The Public Trial in South Perth was officially launched on the 31st of August, 2016.

**Stage 1:** Closed stage on private track for commissioning and testing

**Stage 2:** On public roads but closed to the public

**Stage 3:** On public roads with the opportunity for the public to ride the vehicle



*"It was an exciting experience, the looks on some people's faces as we 'drove' by. Just knowing what the future might be was incredible."*

Trial Participant



**How can I take part?**

RAC's Intellibus® operates five days per week and takes trial participants along a 3.5 kilometre route in South Perth. Anyone over the age of seven years can take part by registering online or at the RAC Intellibus Hub®, located at the furthest eastern end of South Perth Esplanade.

Once registered, there will be an opportunity to choose the preferred date and time, with each ride taking 30 minutes in total and accommodating up to six people per ride. RAC's Driverless Vehicle Chaperones provide an overview of the Trial's aims and the technology at work before going on the 20 minute journey.

**How is the Trial being evaluated?**

The Trial is providing valuable insights into the potential of AVs, as well as some of the associated safety and infrastructure considerations. RAC commissioned two surveys, before and after the Trial launch which revealed insightful information

about the level of awareness and understanding of AVs. Of note, attitudes toward AVs are still mixed and safety remains a major consideration. Many believe there will be road safety benefits from AVs but a similar proportion have concerns about "trusting computers". In addition, trial participants complete a post-ride survey.

The results of these surveys and ongoing trial findings can be found on RAC's website.

**About RAC**

RAC works collaboratively with Government and other organisations to ensure our members and the community can move around our State safely, easily and in a more sustainable way.

We give back by reinvesting our profits for the benefit of our members through projects aligned to RAC's Mobility Agenda, such as the Automated Vehicle Trial.

**Supported by:**



For further information about the RAC Automated Vehicle Trial, please contact [advocacy@rac.com.au](mailto:advocacy@rac.com.au)

