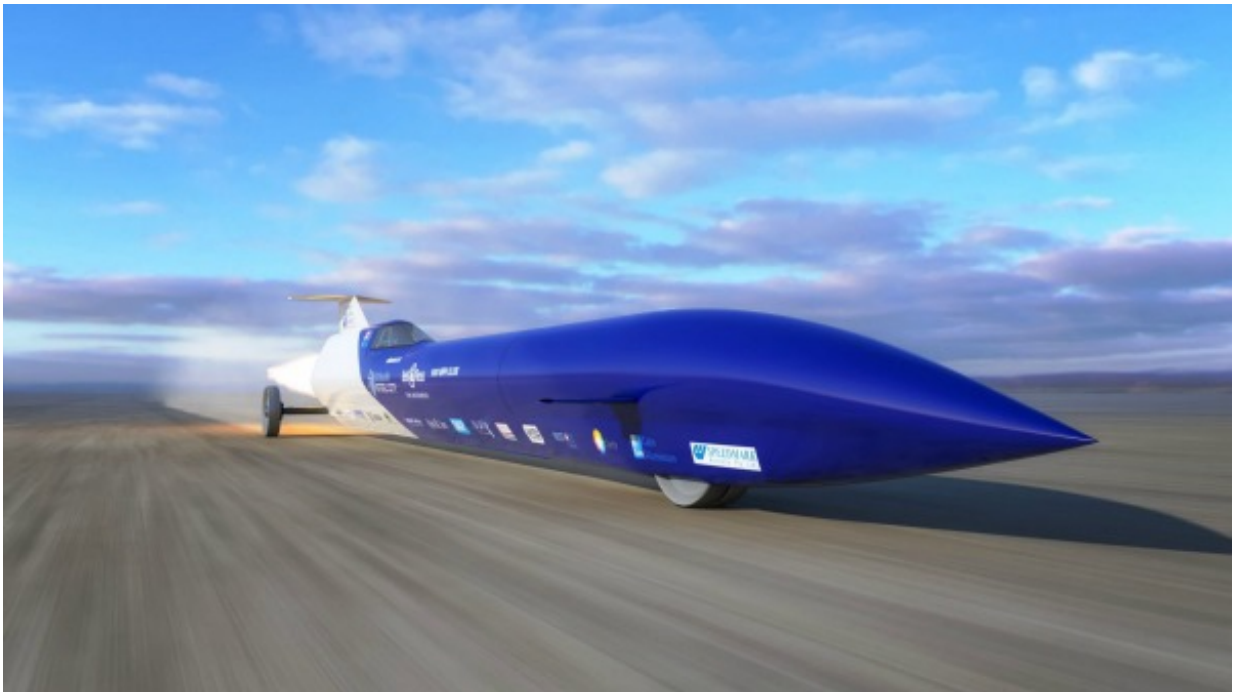


# Rocket-powered car steers towards world speed record

December 9 2015, by Cristy Burne, Sciencenetwork Wa

---



A render of rocket-powered title contender Aussie Invader 5R.

Local speedsters are keen to prove it's possible to become the best—and fastest—in the world with determination, skill, and a whole lot of science.

The Perth-based Aussie Invader team, headed by driver and Australian [land speed record](#) holder Rosco McGlashan, aim to set a new world land

speed record in their rocket-powered car, hoping to reach speeds of 1610km per hour, or faster than the speed at which a bullet leaves a handgun.

"Most of what we are trying to achieve has never been done before," Aussie Invader team member Mark Read says.

"Every part of the car is custom made, you just cannot buy these parts off the shelf.

For example, the wheels are machined from solid blocks of aerospace-grade aluminium, each wheel weighs 140kg, and at 1610km/h (1000 mph), they will spin at 10,000 repetitions per minute.

"This will mean there will be 50,000 g exerted on the rim... so if you placed a 1kg weight on the rim at those speeds, it would weigh 50 tonnes...the wheels just want to pull themselves apart," he says.

The team are putting their car together in a Mullaloo shed, relying on help from experts in aerodynamics, engineering, rocket propulsion and manufacture to construct the vehicle for around \$4 million.

The local car's price tag compares favourably with the hundred million dollars spent so far by their British opposition.

"Our car is simple in design, using just one pressure-fed rocket, with few moving parts," Mr Read says.



A render of the rocket-powered title contender Aussie Invader 5R.

"A lot of our car's parts are designed with the use of CAD [computer-aided design] and tested using CFD [computational fluid dynamics]...the beauty of this is that parts can be created by large milling machines, with very little human error."

Reaching 1000mph is the one big barrier left in motor racing, Mr Read says.

"If we were to break the world land [speed record](#), Australia would hold both the land and water world speed records, which would be a fantastic achievement for this country, and show us as a leading country in engineering and technology.

He is also inspired by the opportunity to excite the next generation of

Aussie innovators.

"This world faces some massive problems, and to help overcome them we need very clever kids to study science, technology, engineering and maths," he says.

"If we can interest kids of today to look at these career paths, we will be achieving a lot."

*This article first appeared on [ScienceNetwork Western Australia](#) a science news website based at Scitech.*

Provided by Science Network WA

Citation: Rocket-powered car steers towards world speed record (2015, December 9) retrieved 24 April 2024 from <https://phys.org/news/2015-12-rocket-powered-car-world.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--