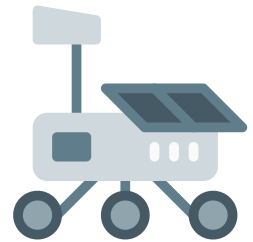


Coding for Autonomous Vehicles



Imagine you're on a Mars adventure with a self-driving Mars Rover. What do you imagine it is doing? How is it driving? What is it looking for? There are software engineers who help make these vehicles work using programming to tell the machines what to do.



Jason Altice, a current software engineer, studied computers and engineering in college and now designs machines that drive themselves. **We call these machines Autonomous Vehicles.**

Jason started out designing boats for the Navy that could go into the water by themselves without a driver. He also helped develop a boat to get rid of dangerous things underwater.

Next, Jason worked at John Deere, the tractor company, where he made sure the machines were safe to use. He also worked at a company called Liebherr USA, helping design massive trucks that could drive on their own.

Now, Jason works at Outrider, where he leads a team that makes sure autonomous vehicles do the right things at the right time.

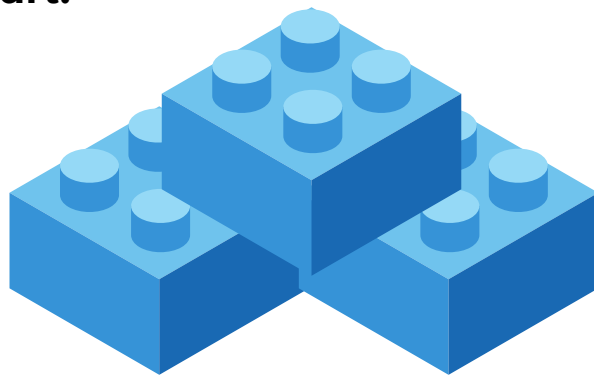
The people on his team are computer programmers who program the machines to move and do their jobs without drivers. The programs that the team creates tell these vehicles what to do and when to do it.

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For example, the programs tell a vehicle exactly when to stop. Stopping a second too late could cause catastrophic damage, so everyone tests and checks their code. **Jason believes that that testing and planning are as important as programming the project.**

Have you ever designed and built a LEGO® set? Before you start building, you plan what you're going to make. How will the finished build look? Will it be strong enough to stand? **Testing autonomous vehicle systems is like trying out your LEGO® creation to make sure it won't fall apart.**



The world of self-driving vehicles can take us on an exciting journey. Engineers like Jason are designing vehicles from navy boats to autonomous trucks and showcasing the incredible possibilities of technology. Just like planning and testing a LEGO® set, **the combination of innovation, programming, and planning is steering us toward an exciting future of self-driving exploration.**