

# **Self-Parking Robotics**

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## **Abstract**

Big companies like Google and Tesla are producing self-driving cars. This project uses the Lego software and Mindstorms EV3 programming to make a protocol of the self-parking car. Our goal is to build a program using the EV3 program that can work like the Google/Tesla car and park itself based on the color intensity of the line it is following. We are using the color sensor to sense the color intensity of a blue tape and follow along a path to park safely. Our goal is to make sure that the self-parking is reliable and its safety can be trusted by our consumers. It also has to park as fast and efficiently since time management is critical in today's life. To do this, we need to make sure that we could optimize Robotics system through SPSS Data-Driven analysis. The auto-parking system can park car very precisely and safely in a short parking time. This technique can save parking space and manage safety risk much better.

## **Keywords**

Self-Driving, Self-Parking, SPSS, EV3, Robotics

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Dr. Charles Chen

## **Biography**

**Mason Chen** is currently a student in the Milpitas Christian Middle School. Mason has certified IASSC (International Associate of Six Sigma Certificate) Lean Six Sigma Yellow Belt, Green Belt, and Black Belt Certificates. He has also certified IBM SPSS Statistics Certificate. He also won the 1<sup>st</sup> Place Award on the Mental Math and Abacus Math contests in the North California Region. Mason Chen is familiar with Six Sigma DMAIC, DMADOV, Lean Production, Minitab, SPSS Statistics, SPSS Modeler CRISP Data Mining, AP Statistics, and JAVA tools. Mason got invited to present his five ASA team statistics projects for 90mins in the local ASQ Statistics and Reliability Group.