

# Automatic Applicator Statement of Need

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The primary purpose for this project is to automate the painting process in Auvitronics. The part that is painted the most number of times in the company is the wheel-cover and so the main requirement is to automate its painting. But ideally this process should be able to be re-programmed such that it takes care of all the parts currently being painted in the plant or are going to be painted in the future.

One of the motivations to do this is the health concern. The human painter has to be present in an environment all day where he constantly has to inhale the paint particles and this could be potentially dangerous to his health. Automation of the process will remove the need to have human presence in hazardous environment.

Other motivations which are pretty common for any automation project include achieving consistency, reducing labor cost, reducing waste and increasing production frequency if possible.

A secondary purpose of the project is to acquire the ability to design robotic arms for automation purposes. This project should hopefully clarify the challenges associated with designing of robotic arms in Pakistan. Once we complete this project successfully, we will feel more confident to design robotic arms locally to meet other automation requirements within this company and outside.