# Pass Task 4.3: Build your own image recognition system – group task

## Image Recognition of Mechanical Tools

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**ABSTRACT**

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| In this task, we have built an image recognition system to identify images of Mechanical Tools like Hammer, Wrench, Plier, and Screwdriver. A system such as this could be useful to household hardware retailers in order to tag images of various brands of their hardware tools to facilitate a smooth search and image retrieval experience for inventory staff as well as e-commerce clients. |

## 1. Introduction

## 2. Dataset

## 3. Elbow Method and Silhouette Analysis

## 4. Classifiers 4.1. k-NN 4.2. SVM 4.3. AdaBoost

## 5. Comparison and Conclusion

## 6. Contributions