KITCHEN UTENSILS DETECTOR USING DEEP LEARNING ALGORITHM

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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This thesis describes an object recognition vision system for automatic kitchen utensils sorting. This vision system will work on tensorflow as its object recognition framework, and will be implemented to the delta robot. This vision system are able to get information about name of the object, position, and orientation. After the process is done this information will be sent to delta robot for pick and place process using ROS. In the end this vision system are able to perform real time object recognition process and able to give fundamental information for pick and place process to delta robot,

Keywords: Custom Object Recognition, ROS, Tensorflow model training and testing, Vision system for automatic sorting.

DEDICATION

I would like to dedicate my thesis work to my advisor Dr. Rusman Rusyadi, B.Sc., M.Sc., my lecturers, my family, and my friends especially from Bassecamp001 for support, advice, understanding, and assistance they provide during the process of this thesis.

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TABLE OF CONTENTS