

UNIVERSITI TEKNOLOGI MARA

**DEVELOPMENT OF PROTOTYPE
OF MINI CRANE**

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ABSTRACT

Cranes are hoisting devices used to raise big, hefty things. The items are raised using a crane hook connected to a metal chain or wire rope and pulled up by a pulley system. A mini crane is designed so that it can be folded and fitted into places with ease. The items are lifted with a wire rope. By passing through coiling wheels that compress and shape each wire to produce consolidated structures or it reduces diameters prior to winding strands around the core, a number of wire strands are combined to create a concentrated wire rope. The wire rope has a hook connected to one end, while the other end is coiled around the pulley.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

Mini cranes are compact, versatile machines that are used in a wide range of industries, including construction and manufacturing. These cranes are typically designed to be lightweight and easy to control, making them ideal for use in confined spaces. Mini cranes have ability to lift heavy loads with ease. Despite their small size, these cranes are capable of lifting weights of up to several tons, making them an essential tool for a variety of tasks. Additionally, many mini cranes are designed to be highly maneuverable, with the ability to move in tight spaces.

This mini crane only has a single fixed pulley to lift a load which is easier to handle. It also has an outrigger that supports the stability of the mini crane, and can be changed depending on the size of the load. It has wheels so the mini crane can move anywhere easily[1].