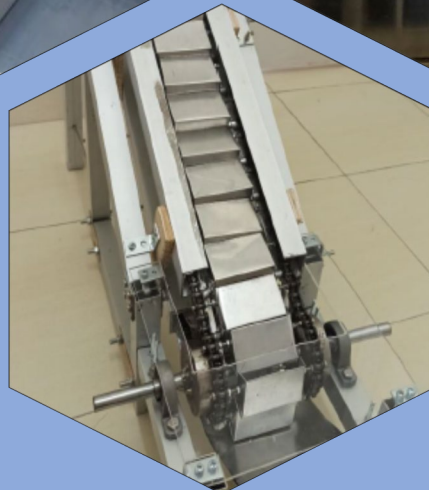
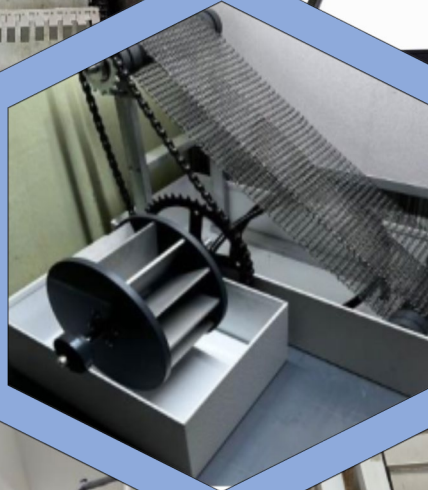


# PROTOTYPE DESIGN COLLECTION

## SERIES 1



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## CHAPTER 93

### Design and Fabrication of Hydraulic Crane for Preschool Education Purpose

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#### PROJECT DESCRIPTION

Hydraulic system is a simple system yet useful in our daily life. Hydraulic is commonly used in the construction and automotive industry. However, lack of exposure and study about hydraulic make some people not realise the advantage and benefit of using this system. Therefore, this project was conducted to make a hydraulic crane machine that is suitable to use at preschool education level. Several methods are used to fabricate this product. For example, cutting, grinding, and drilling. This project is going to use wood or cardboard because this is the suitable material for children to operate. The product will be able to provide a comfortable environment to study about heavy machines. Expecting this will increase the awareness about the advantages of using hydraulic and add a new knowledge to kindergarten kids from a young age without bringing them to an uncomfortable environment to study about heavy machinery. In this study, it is proven that the hydraulic system is not a dangerous system. It could be applied in our daily life usage without worries as long as the application itself is not dangerous.

**Keywords:** *Preschool Education, Hydraulic Crane, Education*

#### PROTOTYPE



**DESIGN PARAMETER**

FAKULTI KEJURUTERAAN MEKANIKAL (FKM) UNIVERSITY TEKNOLOGY MARA (UITM) JOHOR KAMPUS PASIR GUDANG			
COURSE NAME	MEC300 - FINAL YEAR PROJECT 2		
	SESSION: OCTOBER 2021 - MARCH 2022		
GROUP	J4EM1105K		
APPROVED	CHECKED	DRAWN	ALNZAR
			06/02/2022
DRAWING TITLE	ASSEMBLY OF HYDRAULIC CRANE		
PART NAME	-		
PART NO.	-		
REV.	SCALE	PROJECTION	WEIGHT
0	1:4		1.75 KG
			SHEET
			1/2

ITEM NO.	PART NUMBER	DESCRIPTION (mm)	QTY
1	1 - Frame	130 x 320 x 130	1
2	Part1.3	130 x 130 x 10	1
3	Part1.4	340 x 130 x 10	1
4	Part1.5	340 x 130 x 10	3
5	Part1.6	130 x 130 x 10	1
6	Part2.1	5 (diameter)	2
7	3 - Main Section	38 x 35 x 225	1
8	Part2.3	59 x 5 (diameter)	1
9	Part2.5	7 x 2 (diameter)	1
10	Part2.4	5 (diameter)	1
11	4 - Telescoping Section	29 x 29 x 130	1
12	5 - Syringe	20 ml	4

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COURSE NAME	MEC300 - FINAL YEAR PROJECT 2		
	SESSION: OCTOBER 2021 - MARCH 2022		
GROUP	J4EM1105K		
APPROVED	CHECKED	DRAWN	ALNZAR
			06/02/2022
DRAWING TITLE	EXPLODED ASSEMBLY OF HYDRAULIC CRANE		
PART NAME	-		
PART NO.	-		
REV.	SCALE	PROJECTION	WEIGHT
0	1:5		1.75 KG
			SHEET
			2/2