

PROTOTYPE DESIGN COLLECTION

SERIES 1



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e-ISBN: 978-967-0033-07-5

First published, 30 September 2022

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PUBLISHED BY:

Pusat Pengajian Kejuruteraan Mekanikal,
Universiti Teknologi MARA Cawangan Johor,
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CHAPTER 49

Development of a Floatation Platform for a Water Trash Collector

Muhammad Aidil Irfan Bin Mat Nawi and Norhisyam Jenal

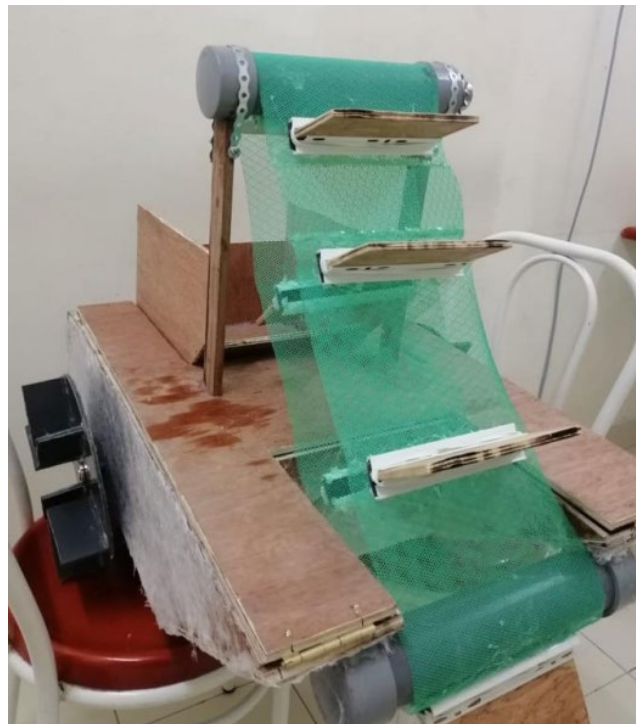
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PROJECT DESCRIPTION

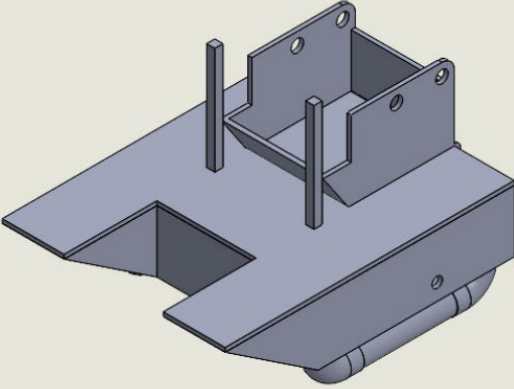
Our world is facing a major problem which is water pollution. Based on studies, plastic is the main reason for this pollution. But there is still a minimal amount of effort by society to clean the river due to lack of awareness. There is also a low amount of water trash collector products developed in the country. The objectives are to design a floatation platform of water trash collector and to fabricate and develop a working prototype of water trash collector floatation platform. While for scope of project, the design should be large enough to accommodate the water propeller, conveyor belt, and the storage tank to fit in it. Furthermore, the design of the platform is based on the capability of the researcher to fabricate the platform in the UiTM Labs. Moreover, the design is limited to a 1 m length to be used in ponds. This project will give many benefits to the society such as being a good assistance to relieve physical labour on garbage cleaning tasks. In conclusion, a new design of water trash collector is expected to be used widely around the country to clean the pond and river for a healthy water resource for society.

Keywords: *Floatation Platform, Trash Collector, Clean River, Plastic*

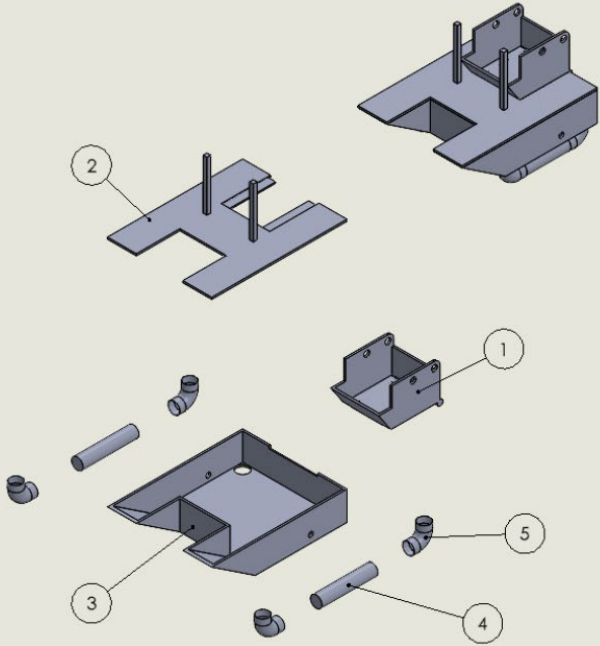
PROTOTYPE



DESIGN PARAMETER



FAKULTI KEJURUTERAAN MEKANIKAL (FKM) UNIVERSITI TEKNOLOGI MARA (UiTM) JOHOR KAMPUS PASIR GUDANG				
COURSE NAME		MEC300 - FINAL YEAR PROJECT 2 SESSION: OCTOBER 2021- FEBRUARY 2022		
GROUP		J4EM1105F		
APPROVED	CHECKED	DRAWN MUHAMMAD ADEL RIFAN 23/02/2022		
DRAWING TITLE		ASSEMBLY OF A FLOATATION PLATFORM AND DUST BIN FOR A WATER TRASH COLLECTOR		
PART NAME		-		
PART NO.		-		
REV.	SCALE	PROJECTION	WEIGHT	SHEET
0	1:7		8.73 KG	1/2



PART NO.	PART NAME	DESCRIPTION	QTY.
1	Dust bin	250mm x 333mm x 215mm	1
2	Floating Platform Cover	540mm x 700mm x 390mm	1
3	Floating Platform	540mm x 700mm 150mm	1
4	Pipe	290mm x 60mm (diameter)	2
5	Pipe connector	60 mm (diameter)	4

FAKULTI KEJURUTERAAN MEKANIKAL (FKM) UNIVERSITI TEKNOLOGI MARA (UiTM) JOHOR KAMPUS PASIR GUDANG				
COURSE NAME		MEC300 - FINAL YEAR PROJECT 2 SESSION: OCTOBER 2021- FEBRUARY 2022		
GROUP		J4EM1105F		
APPROVED	CHECKED	DRAWN MUHAMMAD ADEL RIFAN 23/02/2022		
DRAWING TITLE		EXPLODED ASSEMBLY OF A FLOATATION PLATFORM AND DUST BIN FOR A WATER TRASH COLLECTOR		
PART NAME		-		
PART NO.		-		
REV.	SCALE	PROJECTION	WEIGHT	SHEET
0	1:15		8.73 KG	2/2