

# PROTOTYPE DESIGN COLLECTION

## SERIES 1



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## **CHAPTER 21**

### **Design, Analysis and Fabrication of Can Crusher**

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#### **PROJECT DESCRIPTION**

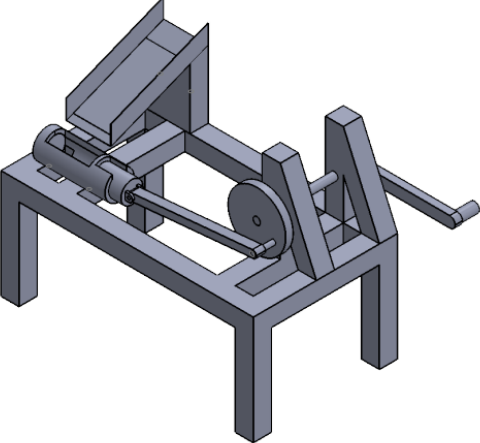
The main objective of this project is to build a Can Crusher machine to minimise scrap volume and reuse cans, making it easier to transport them to a recycling facility. Nowadays, a considerable number of cans are used in factories, restaurants, and other establishments, necessitating a large amount of room for storing or dumping the used cans. This project entails the creation of a Can Crusher that uses a single slider crank mechanism to reduce the volume of cans by at least 70%. Usually, the machine can crusher have many types which are manual and automatic can crusher. For manual operation, it uses human physically which is hand to make the machine works. While for automatic, there are many concepts that have been used to make the machine works which are pneumatic and hydraulic systems. For instance, this product is very easy to use, and consumers can generate side income by selling the wastage can. The manufacturing process will apply to build one product. After that, the project will test product capability whether the product can operate or not. All information about this product should be identified to make the fabrication process going smoothly.

**Keywords:** *Can crusher*

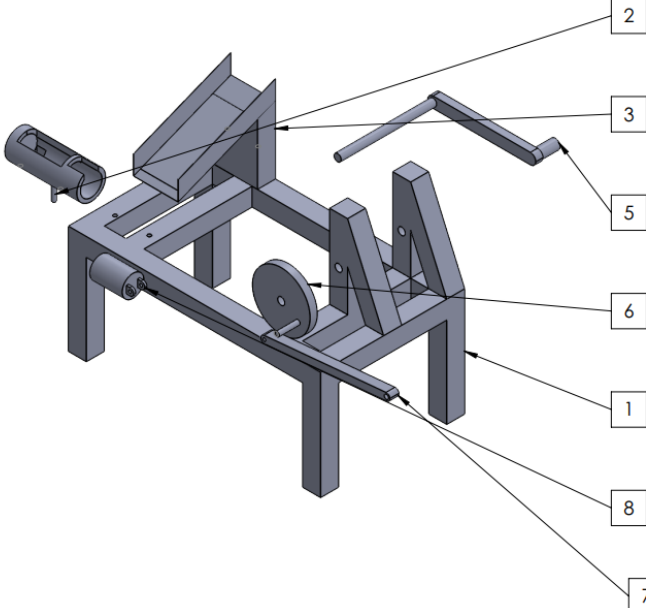
#### **PROTOTYPE**



**DESIGN PARAMETER**

6	5	4	3	2	1
D					D
C					C
B					B
A					A

FAKULTI KEJURUTERAAN MEKANIKAL (FKM) , UNIVERSITI TEKNOLOGI MARA (UITM) JOHOR KAMPUS PASIR GUDANG				
Course Name : MEC 300 - Final Year Project 2				
Group : J4EM1105C				
Approved	Checked	Drawn Muhammad Danish		
Drawing Title <b>ASSEMBLY OF CAN CRUSHER</b>				
Part Name -				
Part No. -				
Rev. 0	Scale 1:8	Projection	Weight 10 kg	Sheet -

6	5	4	3	2	1
D					D
C					C
B					B
A					A

ITEM NO.	PART NUMBER	QTY.
1	body frame (1)	1
2	body crusher	1
3	tray 1	1
4	assemble connector	1
5	Assem btg 1	1
6	crankshaft (1)	1
7	rod (1)	1
8	piston 1	1

DRAWING TITLE : EXPLODED ASSEMBLY DRAWING	
PROJECT TITLE : DESIGN, ANALYSIS AND FABRICATION OF CAN CRUSHER	
CLASS : J4EM1105C	