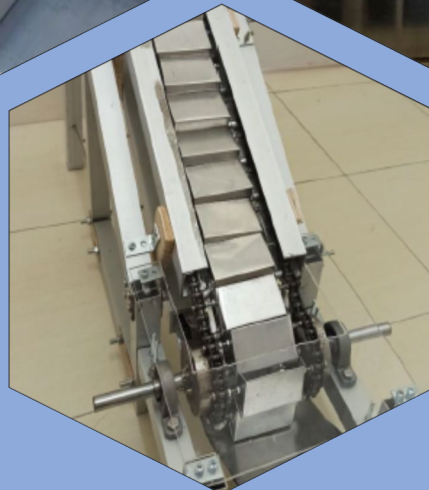
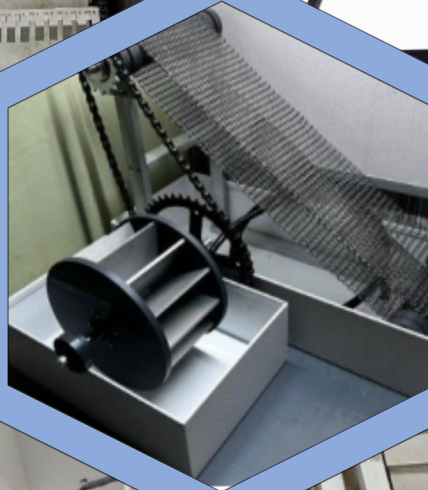


# PROTOTYPE DESIGN COLLECTION

## SERIES 1



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## **CHAPTER 59**

### **Design, Analysis and Fabrication of Sheet Metal Bender**

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#### **PROJECT DESCRIPTION**

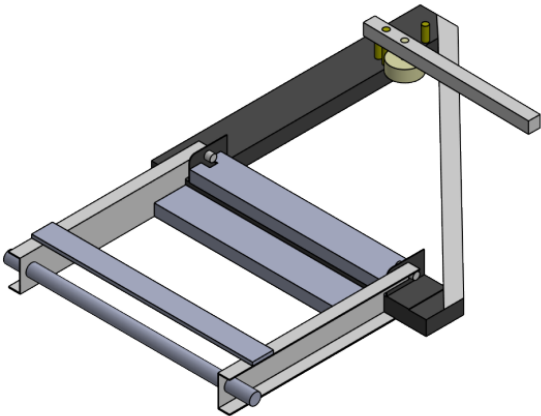
The goal of this project is to solve problems that consumers have when using a metal bending machine. This project contains various studies on the already available metal bending machine, as well as documentation of the design and development processes for the most promising sheet metal bending machine design. The challenges that consumers face is gleaned from a survey that was distributed to many people. The machine's design seeks to give the highest level of safety while ensuring that the machine's performance is not compromised. To improve the machine's performance, it makes use of chemical and engineering concepts. The machine also utilises the highest strength of material currently available within the current budget range. The machine's final design is assessed alongside other design concepts generated throughout the concept design phase of the project research. Using the machine correctly and maintaining it properly will ensure that the metal bends to the desired angle while also avoiding incident thanks to many safety features.

**Keywords:** *Bender*

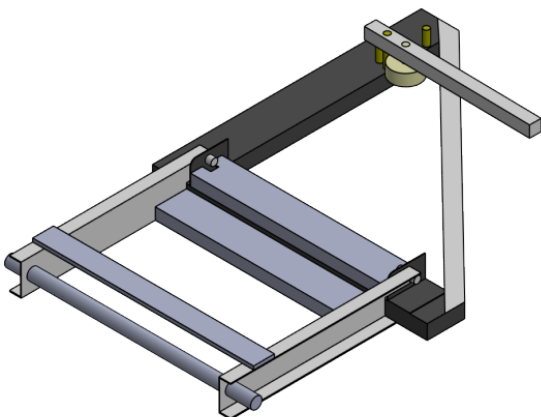
#### **PROTOTYPE**



**DESIGN PARAMETER**

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

FAKULTI KEJURUTERAAN MEKANIKAL (FKM) UNIVERSITI TEKNOLOGI MARA (UTM) KAMPUS PASIR GUDANG		
COURSE NAME : MEC300 - FINAL YEAR PROJECT 2		
GROUP : J4EM1105H		
APPROVED	SIGNED	DRAWN AHMAD FAREEZ IZHAM BIN CHE RAMLI
DRAWING TITLE : ASSEMBLY OF METAL SHEET BENDER		
PART NAME :		
PART NO.		

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

BILL OF MATERIAL (BOM)		
NO.	PARTS	QTY.
1.	BASE	1
2.	CLAMP	1
3.	HANDLE (SHEET METAL)	1
4.	HANDLE (BAR BENDER)	1
5.	PLATE (SHEET BENDER)	1
6.	HANDLE (SUPPORT)	1
7.	HANDLE (SIDE SUPPORT)	1
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