



## METAL BENDING MACHINE

BONY JAIN AK IGAI	20DKM14F1024
ADYLES ROBBIE JANGKA AK HOLLAND	20DKM14F1070
DINIE ASYRAF BIN MAHAT@SELAMAT	20DKM14F1027
BIBIANA TUIL	20DKM14F1040
INTAN NUR AIN BINTI MOHAMAD SULAIMAN	20DKM14F1084

DEPARTMENT OF MECHANICAL ENGINEERING  
POLITEKNIK MUKAH

SESSION: DECEMBER 2016

## **METAL BENDING MACHINE**

**NAME**

**MATRIX NO**

BONY JAIN AK IGAI

20DKM14F1024

ADYLES ROBBIE JANGKA AK HOLLAND

20DKM14F1078

DINIE ASYRAF BIN MAHAT@SELAMAT

20DKM14F1027

BIBIANA TUIL

20DKM14F1048

INTAN NUR AIN BINTI MOHAMAD SULAIMAN

20DKM14F1084

**MR MOHD SAIFUL IZWAN BIN ABDULLAH**

This report is submitted to the Department of Mechanical Engineering in partial fulfilment of the requirements for graduation Diploma in Mechanical Engineering

**MECHANICAL ENGINEERING DEPARTMENT**

**DISEMBER 2016**

**PERPUSTAKAAN POLITEKNIK MUKAH**








## CONFIRMATION OF PROJECT REPORT

**Title: Metal Bending Machine**


**Session: December 2016**

“We hereby declare that this report is our own work and product except for each part that we have been attached from the sources that have been mentioned.”

1. Signature :   
Name : Bony Jain Aklgai  
Registration Number : 20DKM14F1024
2. Signature :   
Name : Adyles Robbie JangkaAk Holland  
Registration Number : 20DKM14F1078
3. Signature :   
Name : DinieAsyraf Bin Mahat@Selamat  
Registration Number : 20DKM14F1027
4. Signature :   
Name : Bibiana Tuil  
Registration Number : 20DKM14F1048
5. Signature :   
Name : Intan Nur Ain Binti Mohamad Sulaiman  
Registration Number : 20DKM14F1084

This report has been submitted and reviewed as to meet the conditions and requirements of project writing as set.

Verified by:

Signature :  .....

Supervisor Name : Mr. Mohd Saiful Izwan Bin Abdullah

Date : 31/3/2017

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## ACKNOWLEDGMENT

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## ABSTRACT

Metal bending machine is a project that is designed and fabricate as a mean to help students of Mechanical Engineering Department at workshop to form a specific degree or shaping metal plate. The main components of this machine is an actuator that form a metal with specific degree and shape, it is similar with other bending machine by using force in forming metal. The linear actuator is powered with motor which control the actuator based on it voltage. This bending machine can form two shapes that are bending up to 90 degree and also curve shape can be form, with metal plate of thickness 2 mm and 50 widths. This bending machine is portable since is easy to carry, smaller and easy to use.

## ABSTRAK

Mesin lenturan besi ialah satu projek yang direka dan dibuat bertujuan untuk membantu pelajar Jabatan Kejuruteraan Mekanikal di bengkel untuk membentuk darjah yang spesifik atau membentuk plat besi. Komponen utama untuk mesin ini ialah penggerak linear untuk membentuk besi dengan darjah yang spesifik dan bentuk, mesin ini adalah sama dengan mesin lentur yang menggunakan daya dalam membentuk besi. Penggerak linear ini menggunakan kuasa motor yang mengawal penggerak berdasarkan voltan. Mesin lenturan ini boleh membentuk dua bentuk iaitu lenturan 90 darjah dan bentuk lekuk dapat dibentuk dengan menggunakan plat besi 2 mm tebal dan 50 mm lebar. Mesin ini adalah mudah alih kerana ia mudah di bawa, kecil dan mudah untuk digunakan.