UNIVERSITI TEKNOLOGI MARA

DESIGN AND FABRICATION OF SLIDING GRINDER TABLE

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ABSTRACT

Sliding grinder table is a mechanism that can cut and grind metal safely. This mechanism is safer to use compared to the conventional grinder mechanisms. This Sliding grinder table is safe to use as it has a sliding worktable that keeps users' hands away from the cutting and grinding area. Compared to conventional grinder which lack of safety which required the user to hold the grinder itself. Using this mechanism, users can grind and cut metal safely. Users can learn to grind and cut the metal easily. This mechanism is made because many of the conventional grinder mechanism user hurt themselves because of lack of safety. So, this sliding grinder table mechanism are increase the safety and avoid injuries for the users. This Sliding Grinder table mechanism works by combined the conventional grinder mechanism and the sliding table itself. The table can slide back and forth and side to side allowing the user to adjust the blade to the cutting spot of the metal. This mechanism allows the user to cut their metal easily and safely. Lastly the sliding grinder table will make it easier for the users to complete their projects and will increase their safety. This project is expected or able to increase the capability of the conventional angle grinder in safety and user comfort. Then this project can decrease the amount of work time for the users to complete their projects. The product will be more user friendly. The conclusion is, this product is used to increase the safety of the conventional angle grinder.

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CHAPTER ONE
INTRODUCTION

1.1 Background of Study

Sliding grinder table is a project who combine the conventional or current angle grinder and a working table which comfort the user to cut a material. This is because, the angle grinder does not have the working place to cut a material. This product has a holder to hold the angle grinder and it attached to the working table. Furthermore, the angle grinder holder can move side to side which user can cut the material easily and faster the material cutting. This product use normal electric supply because of this product used a normal angle grinder but it provided safety and working place of the angle grinder. This product is not a portable product because of it requires a power supply and it not use battery.

Sliding grinder table project are design to be much safer to use than the conventional angle grinder who are now. This is because, there are more probability to be accidents when we use conventional angle grinder. This is because, user have to hold the grinder itself. Because of this the tendency the grinder blade will cut user hand are very high because the distance of user hands from the blade are very close. This sliding table can slide the angle grinder allowing the user to move the object to the grinder blade without their hands getting near to the grinder blade. So, the safety of angle grinder can be improved. Next problem of the conventional grinder is, the sparks can burn the user hand this is because, the user hand are so close to the cutting part.

The manufacturing process of this sliding grinder table is, firstly is welding. This is because, the metal to make the working table have to be assemble to make the table becomes stronger. Next manufacturing process is, grinding this is because, to remove the excessive welding metal from the project, furthermore grinding can remove the rust from the metal of the project. This project will use steel because it is very strong and used to be in heavy duty product.