



اَبُو سَيِّدِي تَيْكُونُو كِي مَارَا
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MECHANICAL ENGINEERING DESIGN

PROJECT:

AUTOMATED PORTABLE HAMMER

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ABSTRACT

Hammering is the most widely used in manufacturing industries as well as in construction activities. Most of the hammers are manually operated and used to fit the parts, to forge the metal and breaks parts of the objects. Manual hammering will need extra energy and time consuming. Moreover, it quite difficult to ensure the consistency in hammering because it depends on the force given by the workers while doing the job. An Automated Portable Hammer was designed to overcome these issues. In this project an automated hammering system allows for fully automatic hammering process by innovating the existing hammer. This allow for accurate, fast and automated hammering wherever whenever needed using a 12V power supply. The DC motor was attached to the pulley and connected to the connecting rod to move the hammer. The other end of hammer was connected to this connecting rod through a mid-swinging arrangement in order to achieve desired hammer motion with enough torque. Moreover, a toggle switch was used to connect and disconnect the power supply from the motor. The cast iron plate was used as a bed for placing the object. As a result, this automated hammering product will improve the consistency in hammering as well as drastically reduce the effort required during hammering.

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