

PROFORMA FOR THE APPROVAL PROJECT PROPOSAL

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Yes

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No

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HOMEWORK WRITING MACHINE WITH CNC CARVING

A Project Report

Submitted in partial fulfillment of the
Requirements for the award of the Degree of
BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)
By

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(Seat Number:)

Under the esteemed guidance of

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DEPARTMENT OF INFORMATION TECHNOLOGY

**DNYAN GANGA EDUCATION TRUST'S
DEGREE COLLEGE OF ARTS, COMMERCE AND SCIENCE**

Affiliated to University of Mumbai
**THANE, 400615
MAHARASHTRA
2019-2020**

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THANE-MAHARASHTRA-400615

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CERTIFICATE

This is to certify that the project entitled “**HOMEWORK WRITING MACHINE WITH CNC CARVING**”, bonafide work of **Harsh Patel** bearing Seat No: _____ submitted in partial fulfillment of the requirements for the award of Degree of BACHELOR OF SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai.

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ABSTRACT

This project shows how to design and building low cost Arduino plotter machine based on the open source hardware and software. The Arduino plotter machine has been dependent on the principle of Computer Numerical Control with limited area depends on the motion X, Y and Z axes. The objectives of this project are to design the Plotter and to develop open source software for control the machine. Basically, the system of this plotter machine is modelling by solid work software to work with three axes stepper motors (as X, Y and Z axes), these three stepper motors are controlled by shield for movement (X, Y and Z axes). This machine's movement on the X axis is 12 inch and Y axis is 12 inch approx. Length of travel means the linear movement of stepper motors that control for X, Y and Z axes from point to another point. The left and right movement controlled by X axis stepper motor, front-back movement controlled by Y axis stepper motor and the pen is up-down that is controlled by Z axis stepper motor. Industries of the country need automation in different equipment which consumes a plenty of time. One of these systems is CNC carving machine which can provide more output in short span of time. All of the setups in industries regarding carving machines were manually manufactured by road side workshops and there was not a single scientific design regarding this machine.

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DECLARATION

I hereby declare that the project entitled, “HOMEWORK WRITING MACHINE WITH CNC CARVING “done at department of information & technology, **Dnyan Ganga Education Trust’s Degree College of Arts, Commerce & Science**, University of Mumbai in partial fulfilment of the requirement for the award of degree of **BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)** is a record of original dissertation work done by me, under the guidance and supervision of Mr. Tulshiram Kamble, and it has not formed the basis for the award of any Degree/Diploma/Associate ship/ Fellowship or other similar title to any candidate of university

Place:

Signature of the Candidate

Date:

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