

ALOK KUMAR SINGH

Mechanical Design Engineer

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EXPERIENCE

Product Design Engineer

Vastu Vihar Biotech Pvt. Ltd.

Technoculture Research Pvt. Ltd.

Sept 2022 - Present Bodhgaya, Bihar, India

- Efficiently conducting scientific research on new technologies & implementing novel, innovative ideas in various aspects of mechanical engineering.
- Machine Design & drawing of simple & complex mechanical assemblies using various CAD software like Solid Works, Autodesk Inventor, AutoCAD.
- Design product & simulation of modules using Ansys Workbench.
- Hands-on experience with fabrication for rapid prototyping & final product using machines like CNC Router Machine, 3D printer, Laser Cutter (UV & Infrared), Lathe Machine, and CAM technology software like ArtCAM & RDworks.
- Ensuring quality control requirements & safety measures & product cost estimation, cost reduction, & product designing for manufacturability.
- Documentation of daily reports and project reports on Google Docs & Overleaf platform using LaTeX.

Site Engineer

HAPBCO

Jan 2022 - Aug 2022 Bhatapara & Udaipur, India

- Led and managed a large construction team of 70 workers, optimizing resources and schedules for successful project completion.
- Strategically oversaw the installation of a critical preheater feed pipe, ensuring seamless integration and operational efficiency.
- Implemented rigorous safety protocols, resulting in zero on-site accidents and adherence to industry regulations.
- Facilitated effective communication with architects, subcontractors, and clients, aligning project goals and milestones.

LANGUAGES

English

Hindi

Bhojpuri



SOFTWARE SKILLS

Solid Works

Ansys Workbench

Autodesk Inventor

AutoCAD

Catia V5

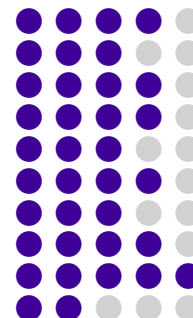
Onshape

ArtCAM

RDworks

Slic3r Prusa Controller

Overleaf/LaTeX



PROJECTS & PRODUCTS DESIGNED

Micro-Fabricator

Modular nano and micro photolithography instrument

- Microfabricator utility & Design patent granted.
- Product Link - [Click here](#)

E-Pipette

Advanced liquid dispenser instrument

- A fully automated advanced liquid dispenser to achieve high precision and efficiency in micro-volume dispensing.

Genotyper

Automated robotics platform with microfluidics module integrated to detect information about genomes and SNPs

- Genotyping on chip is Under utility & Design patent application.

EDUCATION

B.E in Mechanical Engineering

Chandigarh University

Aug 2017 - Jul 2021

Mohali, Punjab

- Term Average: 6.88 CGPA

EXTRACURRICULAR

Patent

- Electro-mechanical Control Device for Hand Pump (2019110300447)

Certificate

- Certificate of Appreciation Mentored and coordinated the AutoZest workshop organized by the Department of Mechanical Engineering.