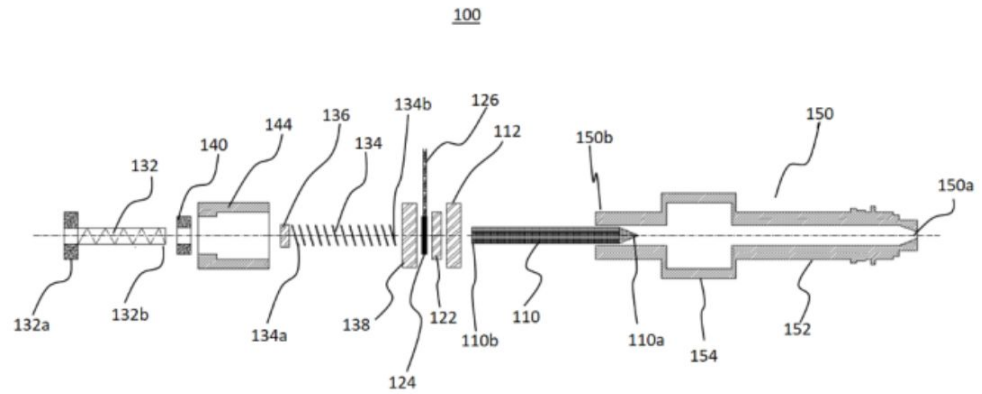


**GRANTED****(IN514840)**

## A device for making designs on a substrate



## NEED

Manual design-making often faces issues with inconsistent pressure application, leading to inaccuracies. What if precision could be achieved in real-time, ensuring consistent and controlled force during each stroke?

## TECHNOLOGY OVERVIEW

This invention describes a device for making designs on substrates by precisely controlling nib force through a force sensor and screw-spring mechanism. It allows for adjustable and accurate pressure, resulting in consistent strokes for detailed designs.

## TECHNOLOGY KEY FEATURES

Precision control, consistent nib force, screw-spring mechanism, force sensor integration, adjustable stroke, real-time feedback, enhanced design accuracy, easy integration with substrate, versatile for different substrates, suitable for industrial design tasks.

[Read more here](#)

## MARKET ANALYSIS

The global manufacturing automation market is expected to grow at a CAGR of 9.5% from 2023 to 2033 [Source: Fortune Business Insights, 2023]. The demand for precise design and automation is rapidly increasing.

## Target Industries

Precision Manufacturing, 3D Printing, Automated Design Systems, Industrial equipment manufacturers, design automation software providers, precision machinery makers, and automated tool developers in the manufacturing sector.

## AT A GLANCE

- SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production)

Technology is available for licensing/ co-development.

Reach out to Prof. Deepak Chitkara, Coordinator, BITS Technology Enabling Centre,  
BITS Pilani Contact Details: [tec.bits@pilani.bits-pilani.ac.in](mailto:tec.bits@pilani.bits-pilani.ac.in), 91 1596-255913