

3D pen functions similarly to 3D printers or glue gun. It quickly melts and cools coloured plastic to create rigid and freestanding structures, which is potential to be a perfect tool for architects, designers and all the creative experimenters. The project aimed to redesign the 3D pen that optimize the experience of creating three dimensional object in the air. The project was supported by LIX PEN.

DRAW IN THE AIR

REDESIGN OF 3D PEN

The final concept is shown above. It is a product that can be stabilized on the hand while being spatially moved. It is a entirely new product which essentially focus on the behaviour of creating three dimensional object in the air. In this new design, comfortability, controllability, portability and adaptability thereof, which act as fundamental design goals for this project, are dramatically improved.

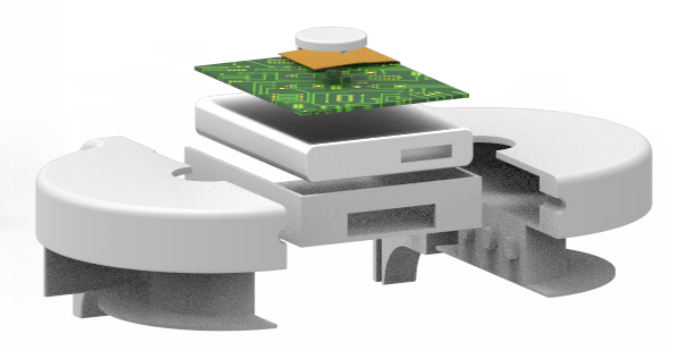
Entire product is held and operate in a totally new way. Semi- separate body enablers users to freely move the extrusion part while stabilizing other components on the back of hand. One ball pivot in the centre of palm allows users flexibly rotate the product. Internal rechargeable battery and filament spool enhance the smoothness by prolonging the continuity of usage. Extensible clip make it comfortable to adapt to different dimensions. One directly colouring mechanism coat the pigment on while or transparent filament, which make the colouring process much more efficient.



Holding gesture



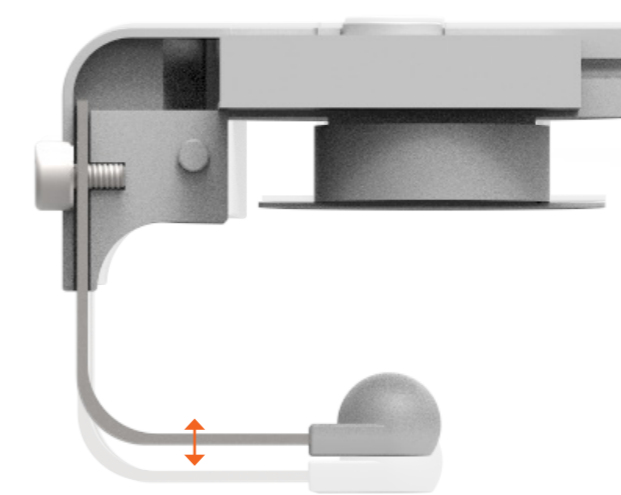
Flexible pivot



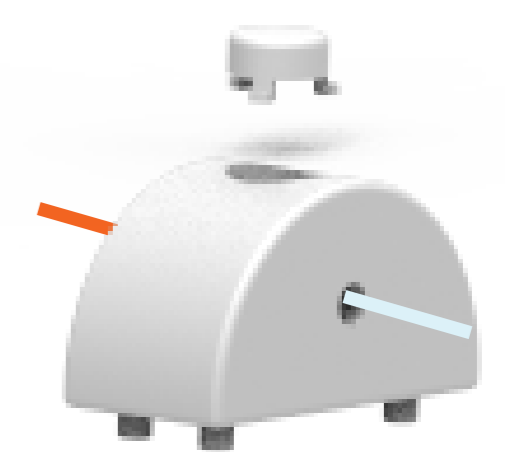
Rechargeable battery



Extra filament spool



Extensible clip



Directly colouring components

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Redesign of 3D pen
2017- 11- 28
Integrated Product Design

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