

3Dn-Tabletop™

The 3Dn Series Factory in a Tool (FiT) offers cutting-edge technology, with a powerful and robust high-speed, high precision motion platform tailored for 3D manufacturing. Its versatility surpasses conventional standards by seamlessly producing complete products rather than just individual parts.

This user-configurable system streamlines the transition from CAD designs to fully functional electronic products. The system effectively manages and synchronizes multiple tool heads either in series or in parallel, ensuring seamless operation and unparalleled efficiency. Its capabilities include:

- 3D printing structures and housings using our nFD™ material extrusion toolhead
- Precision microdispensing and embedding of conductive traces with our Smartpump™ toolhead (with pentip size as small as 25 μm, printed lines 20 μm, and dots as small as 50 μm)
- Precise placement of electronic components with our PNP toolhead
- Micro-milling of fine surface features with our nMill toolhead

Integrated Process and Enclosure Add-ons:

- Plasma cleaning
- Aerosol Jetting
- Custom Integration
- Light Tight Laser Enclosure
- Pulse Forge
- Rotational Stage
- Rigid Cylinder Fixture
- Flexible Cylinder Fixture



Specifications:

Dimensions: 112 x 94 x 176 cm

Weight: 3000 lbs/1361 kg

Power: Single Phase; 120 VAC

Features:

3D manufacturing configuration: Smart Pump™, nFD™, nFD-HT™, nMill™, and nPnP360™

All operations set in CAD, executed on a single system, through nStudio, the in house UI

3/4/5/6 Axis Motion Platforms

Capabilities:

X/Y Accuracy	± 10 μm
X/Y Bidirectional Repeatability	± 1 μm
X/Y Maximum Speed	300 mm/s
X/Y Travel Range	300 x 150 mm
X/Y Resolution	100 nm
Z Accuracy	± 6 μm
Z Bidirectional Repeatability	± 1 μm
Z Maximum Speed	50 mm
Z Travel Range	100 mm

