



# Life Sciences Innovation Hub

## Prototyping Labs available equipment:

- **Waterjet Cutter** (Echojet, 5-axis waterjet 4'-3" square table)
- **CNC Router** (XYZ MetalWorker 4010, Working area: 152.4x304 cm)
- **CNC Mill** (HAAS Super Mini Mill, 10,000 RPM, 3 axis, WIPS)
- **Desktop CNC** (Carbide 3D Nomad 883, 10,000 RPM, 8"x8"x3" cutting area)
- **CNC Lathe** (HAAS ST 28, 12" chuck, 3200 max RPM, 12 tools)
- **Manual Lathe** (Modern GH 1440W, 14" swing over bed, 3HP)
- **Laser Cutters and Engravers** (Trotec Speedy 360 FLEXX 80W CO2 & 30W Fiber 32"x20" work area, and Nova 63 CO2 130W 66.9" x 44.5)
- **Floor Scale** (PFA261 C MT 1K 36X36 I236)
- **Shear Brake Roll** (BAILEIGH SBR-5216: 4' x 8' 16 gauge mild steel)
- **BS-712R 7" Metal Cutting Band Saw**
- **Vacuum Former** (Formech 450DT, 160 mm depth of draw, 450 x 300 mm max sheet size, 6 mm max material thickness)
- **3D Scanners** (HandySCAN BLACK Elite Limited, accuracy: 0.012 mm)
- **CMM** (Gage Max FaroArm CMM, Working Volume: 1.5 m)
- **Multisensor Measurement System** (Keyence LM-X100TL, Capacity: 325 mm x 175 mm, Accuracy X& Y:  $\pm(1.8 + 0.02 L) \mu\text{m}$ )
- **Universal Testing Machine** (Instron 68TM-50 and the Chamber)
- **VR Goggles** (Varjo XR-4 Focal Edition, and HTC VIVE XR Elite)

## 3D Printers (FDM, SLA, and SLS):

- **Makerbot Method** (FDM, Build volume 15.2x19x19.6 cm)
- **Bambu Lab X1-Carbon Combo, and BAMBU LAB X1E combo** (FDM, 0.2, 0.4, and 0.6mm nozzle, Build volume: 256 x 256 x 256 mm)
- **Neptune 3 Max** (FDM, Build volume: 42x42x50cm, Max Temp: 260 °C)
- **UltiMaker S7 Bundle** (FDM, 33 x 24 x 30 cm, 2.85 mm filament diameter)

- **Fuse 1 3D Printer and Sift** (SLS Technology, Nylon 12 Powder, Build volume: 16.5 x 16.5 x 30 cm, Layer Thickness: 110 microns)
- **Fuse 1+ 30W 3D Printer Sift** (SLS Technology, Nylon 11CF Powder, Build volume: 16.5 x 16.5 x 30 cm, Layer Thickness: 110 microns)
- **Formlabs Form 3** (SLA, Build Volume: 14.5 x 14.5 x 18.5 cm, XY Resolution: 0.025 mm)
- **Elegoo Saturn 3 Ultra 12K** (Build Volume: 218.88 x 122.88 x 260 mm, XY Resolution: 19x24µm)
- **Elegoo Saturn 8K** (Build Volume: 21.9 x 12.3 x 21 cm, X& Y Resolution: 0.0285 mm)

## Electronics and Other Power Tools

- **PCB Printer** (Voltera V-One, 4.5" x 5" Print area)
- **Flexible Electronics Printer** (Voltera Nova, 100 µm Line width, 1,000 - 1,000,000 cps Viscosity range)
- **Reflow Solder Batch Oven** (DDM Novastar GF-B-HT, Up to 12"x 12" boards)
- **Electrophoresis Power Supplies, Multimeters, Dual Function Digital Soldering and Desoldering Stations, and Digital Oscilloscopes**
- **Sewing machine** (Singer 4452)
- **Drill press** (Rikon 17in, speed : 200-2200 RPM)
- **BANDSAW** (14IN. DELUXE 1.75 HP RIKON)
- **Bench sander** (Porter Cable PCB420SA)