



## Sydney Manufacturing Hub – Rates 2021

Please contact [smh.info@sydney.edu.au](mailto:smh.info@sydney.edu.au) to discuss your project

Instrument	Cost (Internal Users)
Furnaces	\$15/hour
Salt baths	
Oil baths	
Extruders (Polymers lab)	
3D Polymer Printers (FFF printers)	
3D Metal Printers- Mlab, M2, A2X & SpectraH	\$40/hour
3D Ceramic Printer – CeraFab 7500	
Pre & Post Fabrication Equipment	
Nanoindentation System	
3D Confocal Microscope	
Vickers Hardness Tester	\$100/hour
Technical Staff Assistance	
Consumables – Metal powders, ceramic slurry, polymer resins and filaments will be charged to the researcher per weight/volume used	Quotation Required- Contact Facility
<b>Individual user cap (applicable for internal staff only)</b> <i>Not included in the cap: Staff time &amp; Consumables</i>	\$1000/calendar year (Excluding 3D metal and ceramic printers)  \$1500/calendar year (if using all equipment)
<i>External Academic rates = 2x Base Internal Rate</i>	
<i>External Commercial Rate = 3x Base Internal Rate*</i>	

\* this is valid for all equipment except for the 3D Ceramic Printer – CeraFab7500 for which the commercial rate is \$350/hour.



## Mechanical testing suite available to SMH users

The below suite of instruments are located in room S152 in the Mechanical Engineering Building (J07). The equipment can be booked [online via this portal](#).



### Specifications

#### ElectroForce 3550

- 15kN dynamic force capacity
- Maximum frequency: 50Hz
- 50mm displacement range
- Test space size: 1000mm
- Maximum linear velocity: 1.5 m/s
- Environmental chambers, temperature range: -150 °C to 350 °C

#### 3D VIC DIC

- 3D stereoscopic type; Real-time display of displacement and strain overlaid on live image
- Real-Time Correlation with analog voltage output – evaluate, display and output data in real-time for interfacing with other Universal Testing Machines
- Multi-camera system for up to 360 degree measurement around an object and simultaneous front and back side measurements at room temperature
- High speed cameras, 640 x 480 px @ 1600 fps
- Measurement area 10 mm<sup>2</sup> up to 0.3 m<sup>2</sup>

#### Thermal Camera

- Temperature range: 0 - 250°C
- Thermal sensitivity:  $\leq 0.1^\circ\text{C}$
- Spectral range: 7.5 – 13  $\mu\text{m}$