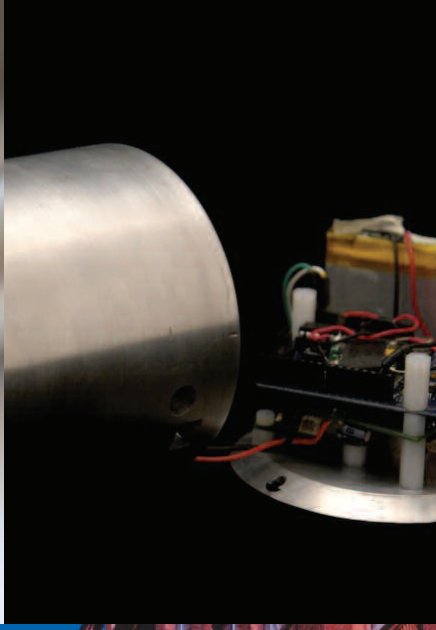


Rapid Prototyping and Fabrication

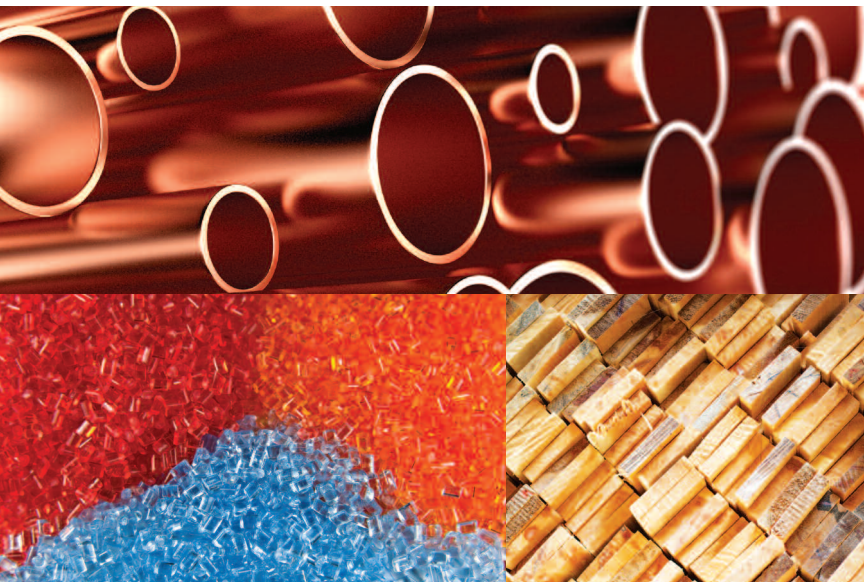
New York City Facilities

NYCEDC

RAPID PROTOTYPING AND FABRICATION (RPF) is an emerging industry that is bringing New York City's culture of innovation and experimentation into the digital age. Designers, engineers, tech entrepreneurs and an increasingly wide range of others use fabrication tools such as laser cutters, 3D printers, and CNC milling machines to develop new products quicker and at a lower cost — and now you can join them in realizing your ideas.

New York City is fortunate to house a variety of prototyping and fabrication centers. They offer opportunities for knowledge sharing, shared access to machinery, and professional services. New York City's prototyping and fabrication assets can be as hidden as they are diverse, ranging from new online operations, to family-run machine shops, to research centers within universities. We hope this map will help you understand and navigate these resources and explore how you can benefit from what RPF has to offer.

For more information on New York City's Rapid Prototyping and Fabrication facilities, please visit **nycedc.com/industrial**



New York City's Rapid Prototyping and Fabrication facilities can be categorized by type of access, prototyping processes used, and materials employed.

TYPE OF FACILITY

NYC's facilities are described by three main types of access: commercial, membership, and research. While centers all contribute to our shared knowledge, they address the needs of end users differently.

Commercial: Commercial RPF facilities include online portals where customers submit digital files to order laser cut or 3D printed materials, machine shops that can help customers troubleshoot engineering or design problems, and design studios that work with all stages of products. Customers pay a third party to execute the project rather than pay for equipment access to produce the product themselves.

Membership: Membership facilities almost always require monthly payments and accept members on an open, application, or invitation basis. Equipment is shared, and use may require additional fees. These facilities often provide classes and other support for inexperienced members and the general public.

Research: While the public cannot directly use their equipment, research institutions often offer classes, host community events and offer insight into the latest trends and technologies in the field.

MATERIALS

Different equipment and expertise are required for working with different materials. While prototypes can be made from several materials, some jobs require specific expertise. For this reason, facilities work with or specialize in four main types of materials: **Metal, Plastics, Wood, Electronics.**

CAPABILITIES

RPF facilities have varying capabilities and capacities to employ specialized technical processes. While most facilities house their own equipment, others ultimately use a third party for some types or portions of fabrication.

Comprehensive Design and Fabrication: Facilities with capacity in design, engineering and fabrication can bring idea to reality in-house, from research, development, prototyping to final fabrication. Facilities offering CDF usually do not accept on-spec projects and may not have all capacities on-site.

Digital Drafting: Computer-based parametric modeling using CAD-based software Commercial facilities with this capability use digital drafting to translate your sketches into digital models. With membership facilities, this icon designates access to computers loaded with 3D modeling software.

3D Printing: Additive layering of material to create a 3-dimensional object from a digital design.

Laser Cutting: Use of a laser beam to cut, mark or etch a material's surface.

CNC Machining: Subtractive technique that removes material based on a path set by a 3D-design.

Injection Molding: Heat-based process that uses molds to reproduce plastic objects.

Casting: A process that creates metal, concrete or resin forms from pre-made molds.

SELECT RAPID PROTOYPING AND FABRICATION FACILITIE

1. **3rd Ward**
C D E M P W
195 Morgan Avenue
Brooklyn, NY 11206
http://www.3rdward.com

2. **Alpha One Labs**
3D D E L M P W
231 Norman Ave, #312
Brooklyn, NY 11222
http://www.alphaonelabs.com

3. **Associated Fabrication**
3D CDF D L M P W
72 North 15th Street
Brooklyn, NY 11211
www.associatedfabrication.com

4. **Collab**
3D D E I L M P W
304 Hudson Street, 6th Floor
New York, NY 10013
http://www.collab-orators.com

5. **Columbia University**
3D C CNC D E L M P W
1172 Amsterdam Avenue
New York, NY 10027
www.columbia.edu

6. **Cooper Union**
3D C CNC D E I L M P W
30 Cooper Square
New York, NY 10003
www.cooper.edu

7. **CUNY Center for Advanced Technology**
3D C CNC D E I L M P W
160 Convent Avenue
New York, NY 10031
http://www.cuny.edu/site/cat.html

8. **CW&T**
3D C CDF CNC D E L M P W
1205 Manhattan Ave
Brooklyn, NY 11222
http://www.cwandt.com

9. **DCM Fabrication**
C CDF I L M P W
63 Flushing Ave
Brooklyn, NY 11205
http://www.DCMfabrication.com

10. **Eyebeam**
3D D E L M P W
540 W 21st Street
New York, NY 10011
http://www.eyebeam.org

11. **Ferra Designs**
3D CDF CNC D L M
63 Flushing Ave, Unit 135
Brooklyn, NY 11251
www.ferradesigns.com

12. **Ground Lab**
3D C CDF CNC D E I L M P W
26-12 Borough Place, Warehouse #1
Queens, NY 11377
www.home.groundlab.cc

13. **GT Machine & Tool**
C CNC D E M P
32-14 49th Street
Queens, NY 11103
www.gtmachinetool.com

14. **Irca Metal Spinning**
3D C CNC D M
1205 Manhattan Ave, #121
Brooklyn, NY 11222
http://www.ircametals.com

15. **ITP, NYU**
3D CNC D E L M P W
721 Broadway, 4th Floor
New York, NY 10003
http://www.itp.nyu.edu

16. **Kennedy Fabrications**
3D C CNC D E I L M P W
247 West 37th Street, 3rd Floor
New York, NY 10018
http://www.kennedyfabrications.com

17. **Kontraptionist**
3D C CDF CNC D E I M P W
99 Commercial St
Brooklyn, NY 11222
http://www.kontraptionist.com

18. **NYC Resistor**
D E L M P W
87 3rd Avenue
Brooklyn, NY 11217
http://www.nycresistor.com

19. **NYFabricates**
3D CDF CNC D E L M P W
45-50 30th Street
Queens, NY 11101
www.nydesigns.org/content/nyfabricates

20. **Parallel Development**
3D CDF CNC D E L M P
810 Humbolt Street
Brooklyn, NY 11222
http://www.paralleldevelopment.net

21. **Parsons**
3D C CNC D E L M P W
66 Fifth Avenue
New York, NY 10011
http://www.newschool.edu

22. **Pratt Institute**
3D CNC D E L M P W
200 Willoughby Avenue
Brooklyn, NY 11205
www.pratt.edu

23. **Product and Design**
3D C CDF CNC D E L M P W
63 Flushing ave, Unit 322
Brooklyn, NY 11251
http://www.productanddesign.com

24. **Prototope**
L M P W
349 Greenwich St. #5
New York, NY 10013
http://www.prototope.com

25. **Quirky**
3D C CDF D E L M P W
628 Broadway, #300
New York, NY 10012
http://www.quirky.com

26. **Shapeways** *
3D C CNC D E M P W
419 Park Ave South
New York, NY 10016
http://www.shapeways.com

Key

TYPE OF FACILITY

- Commercial Facility
- Membership Facility
- Research Facility

MATERIALS

- E Electronics
- M Metal
- P Plastics
- W Wood
- 3D 3D
- C Cas

ES IN NEW YORK CITY

27. **Studio Mode** *
CDA CNC D E L M P W
1205 Manhattan Ave
Brooklyn, NY 11222
http://studiomode.nu

28. **Tietz-Baccon**
3D CDF CNC D L M P W
47-17 5th St
Queens, NY 11101
www.tietz-baccon.com

29. **Utley's**
3D C CNC D E L M P W
31-23 61st Street
Queens, NY 11377
http://www.utleys.com

30. **Wiggby Precision Machine Corp.**
CNC D E L M P
140 58th Street
Brooklyn, NY 11220
http://wiggbyprecision.com

31. **Williamsburg Spinning**
C CNC D L M
263 Kent Ave
Brooklyn, NY 11211
http://williamsburgmetal.com

32. **Workspace11**
3D C CDF CNC D I L M P W
71B Oak Street
Brooklyn, NY 11222
http://www.workspace11.com

CAPABILITIES

Printing
ting

CNC CNC Milling
CDF Comprehensive Design + Fabrication
D Digital Drafting
I Injection Molding
L Laser Cutting
* Online Only

NYCEDC

New York City Economic Development Corporation

www.nycedc.com | Find us on:

Prototyping Cover Images Courtesy CW&T