# ProtoPulsion

## Service Bureau

**Soft Tooling | Laser Engraving | FDM | SLA | Objet | SLS | 3D Scanning | FEA | 3D CAD | Model Finishing | Machining**

## Our Service Bureau Mission:

ProtoPulsion has put together a synergistic product offering that helps our customers bring their products to life faster, better, and cheaper. ProtoCafe, our full turnkey service bureau, offers a full solution from design, to prototyping, bridge to production, to full production. Because no project is ever the same and our customers rely on us to help them create the best, we work side by side to tailor a solution that's right for them. This includes, but not limited to: material research, post processing options, RP methodologies, and production manufacturing alternatives.

### Urethane Castings / RTV Tooling:

We specialize in silicone molds and urethane castings. Castings are fast, accurate, and low cost. They are a great option when you need a spec-like material for multiple sets, in a short time frame, for less than a traditional tool would cost.

**Materials Options:** Material can be chosen to match the hardness of your production material, from 10 shore A to 80 shore D, giving the prototype the same "feel" as a production part. Today's urethanes can withstand heat up to 220 degrees F.

- ABS-like
- Polyesther
- Epoxy
- Clear/Tinted
- Silicone Rubber
- Lexan-like
- Santoprene-like
- Polyurethane resins
- Polypropylene-like
- Over molded
- Insert molded
- Production Grade
- FDA approved materials (USP Class 6)

### Model Finishing / Painting / Plating:

We offer complete model finishing capabilities for tradeshow models, field testing, high fidelity models, or concept models.

Options Include: (but are not limited to)

- Digitally color matched paint
- Threaded Inserts
- Clear Coating
- Soft touch coating
- Custom masking and painting
- Show quality finishes
- Full Scale Prototypes
- Master Pattern finishing
- EMI Shielding
- Plating / Metallizing
- Laser cut graphics / logos
- Pad printing / Silk screening
- Graphic applications (i.e. logos, user interfaces, etc.)

### Laser Engraving / Marking:

We use state of the art ULS computer controlled laser systems to mark, cut, and engrave images or drawings into real items using pretty much anything: anodized aluminum, metal, wood, plastic, fabric, paper, glass, leather, stone, ceramic, rubber.

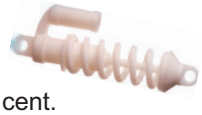
### 3D Scanning:

We use our top of the line Exa-scanners for scanning applications such as reverse eng, inspection, CAD/CAM/CAE, and mock-ups. The Exa scanners are completely portable, handheld, and high resolution so we're not limited by the size of the object. Output can range between STL and parametric solid model.

### RP Material Offering:

Equipment includes Stratasys FDM 400mc, Objet 333 & 250s, Dimension 1200es, Dimension Elites, uPrints, and SLA Viper.

**Providing a range of prototype and production grade materials:**



**ABS:** plastic
**ABSi:** semi-translucent.
**ABS-M30:** stronger than Standard ABS
**ABS-M30i:** medical and food grade.
**PC:** (Polycarbonate)
**PC-ISO:** (Polycarbonate-ISO) medical applications.
**PC/ABS:** (Polycarbonate/ABS Blend)
**ULTEM:** super strong, lightweight and flame-retardant.
**PPSF:** (Polyphenylsulfone) V-Zero flammability rating, super strong, chemical resistant
**SLA:** (Stereolithography)
**Polyjet / Objet:** High resolution models with 16 micron layers- available in white, blue, and black
**Translucent** High resolution models

**Flexible rubber-like models:**
**Tango Gray:** hardness of 75 Shore A
**Tango Black:** hardness of 61 Shore A
**Tango Plus:** similar to silicone.

**ProtoPulsion | 635 Bair Island Rd. Suite 106 | Redwood City, CA 94063 | 650-369-5335**
**www.PROTOPULSION.com | sales@protopulsion.com**