BLACKBIRD ORBIT

ADVANCED MATERIALS & MANUFACTURING FOR DEFENSE

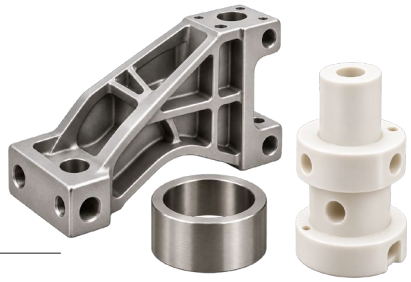
RESHORE | REFINE | REARM

OUR MISSION

To engineer advanced materials and manufacturing systems that close critical capability gaps in defense and strategic industries.

Made **here**. Made **tough**. Reshoring the materials that **power** the mission.

01 Metal & Ceramic Injection Molding



Custom feedstock and process development for complex metal and ceramic components.

- BIT-treated powders and high-solids feedstocks
- Coordinated molding, debinding and sintering development
- Evaluation of shrinkage, distortion and part quality

BIT advantage: Powder surface modification to improve compatibility with binders and support higher solids loading.

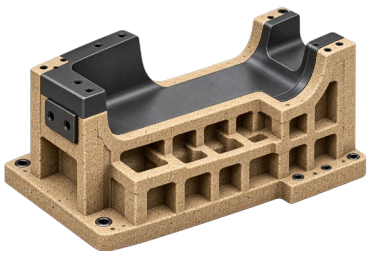
02 Custom Solids-Loaded FFF



Application-specific polymer filaments filled with metals, ceramics or functional particles.

- Material formulation, filament and print-process development
- BIT-enabled powder-polymer compatibility
- Magnetic, electromagnetic and thermal applications

03 Blackbird Additive Tooling



Printed forms, infiltrated and finished for prototype and bridge manufacturing.

- Thermoforming, composite layup and compression molds
- Trim and drill fixtures, assembly jigs and manufacturing aids
- Tool development around geometry and process requirements

Development programs & teaming opportunities

Discuss a candidate component, material, or tooling need.

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Digital line card