

CASE STUDY – FUNCTIONAL FIREARM TESTING

Process Utilize – Stereolithography (*Somos DMX Resin*)

THE OBJECTIVE

A custom firearms manufacturer contacted us with a request to produce a prototype that would be able to withstand forces from the sub assemblies within the lower housing that was being tested.



THE CHALLENGES

The lower housing needed to be able to be machined if there were changes, as well as withstand repetitive assembly and disassembly of the internal component. Additionally the part needed to have a fine surface finish off the machine. The customer requested that no additional finishing be done to the part.

THE SOLUTION



The CAD file for the Lower receiver was used as used to produce a high resolution STL file to be grown on a SLA with a 0.003” layer slice

For this project the SOMOS SL-100, also known as DMX, was selected to grow this part. DMX is a robust photopolymer that has excellent impact resistance and good machinability. Additionally it has a high flexural modulus with is desirable when repetitive assembly and disassembly occurs.



After the part was completed it build the supports where removed and it was thoroughly cleaned. With no additionally finishing the internal components were assembled and the receiver was now a functional test platform for various internal configurations.