



## 3D Systems ProJet™ 3000 Delivers Realistic, Functional Color Prototypes

Global Healthcare company chooses ProJet™ 3000 3D Printer to innovate and take charge of their prototyping capabilities.



Recently a global healthcare company backed by decades of innovation with leadership positions in hormone replacement therapy and diabetes care began to evaluate 3D printers. This company is committed to combating Diabetes through awareness, education and superior treatment options. Their goal is to arm patients with the necessary information and leadership technology and encourage them to take charge of their condition.

So this healthcare giant took charge of their prototyping capabilities in R&D prompted by the need to produce a diabetes pen consisting of a multitude of small, complex parts, each representing an important function of the final product. After reviewing the specific requirements, TechCluster, a local 3D Systems reseller suggested that they invest in a ProJet™ HD 3000 3D Printer. The translucency and extremely fine feature detail of the prototypes printed by the ProJet™ using the VisiJet® EX200 Material assists in carrying out complex fit tests and visualizing fluid levels, which met customer expectations. However, when the products in development are presented to patient and doctor panels, or shown at tradeshow, they have to be the color of the final injection molded parts. This presented a new but very real challenge.

Painting the parts, as many other 3D printing customers successfully do, caused issues for the healthcare leader. The parts increase in size due to the color layer and painting inside their small, extremely complex part is impossible. So the application engineers needed to come up with a new and innovative solution. They developed a process with a special solvent heated in a bath to 90°C/194°F where the parts to be tinted are deposited for a specific period of time, depending upon the targeted color intensity. The result is perfect; parts that match the color of the final product without sacrificing the superior detail, finish and snap-fit characteristics of the functional prototype.

