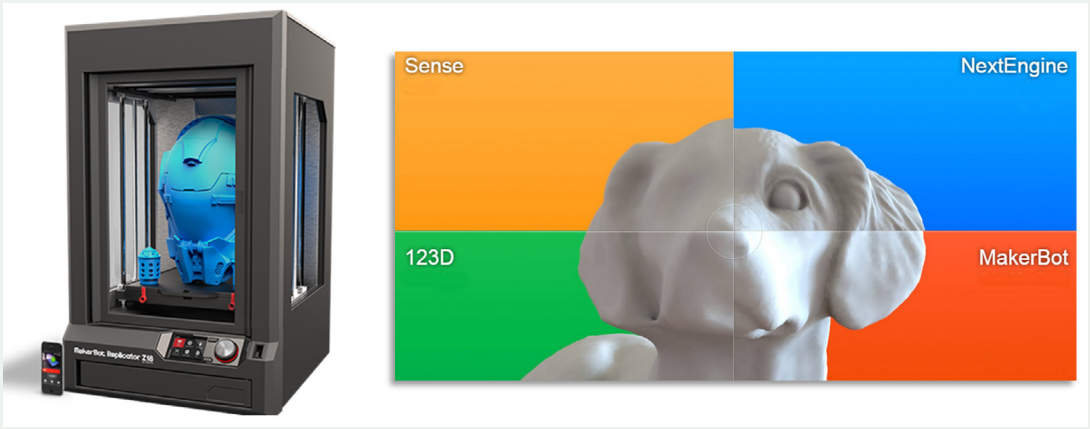
3D Printing and a Makerspace in Alkek's Learning Commons



In spring 2016, a 3D printing service will be established for students, faculty, staff, and the Texas State University community. This technology will make it possible to print objects ranging from complex molecular structures to theater set designs to medical prosthetics.

Located in Alkek's fourth floor computing lab, the printing service opens a fascinating new set of prospects. From learning perspectives, 3D printing is useful to schools and departments extending from Business and Engineering Technology to Education, History, and Art and Design. Businesses creating products today are interested in rapid prototyping, and students can get an edge by having some initial exposure to 3D printing. For Engineering Technology students, 3D printing enables the translation of 2D technical drawings to 3D models so that complex parts fit together correctly or can be modified. Education students learning to teach in the K-12 STEM disciplines will find that 3D printers motivate young minds to learn the complex mathematics and visualization methods needed to create 3D models.

The library's 3D printing infrastructure and service consists of a **Replicator Z18** (Makerbot's largest 3D printer) and a **Next Engine 3D scanner**. Students, faculty, and staff may bring in their own 3D objects to scan, and patrons may also send 3D files created elsewhere to the printer. Available software to support 3D printing includes **SketchUp Pro**, 3D software for file conversion, and **Rhino**, for design modification and 3D modeling. Higher-end PCs will be available to address processing needs and memory required for 3D work.

Placing the 3D printer in the Learning Commons enables students and faculty from diverse areas to find a third space to dialogue, collaborate, and synthesize ideas. Hopefully, this new technology will lead to rich interdisciplinary collaboration.

As the 3D Printing service gets off the ground, it will be interesting to witness the type of 3D objects our academic community begins to create and print —now in 3D.

by Ray Uzwyshyn, Director, Collections & Digital Services

Upcoming Events!