

PingDSP Delivers Deep Water Swath Bathymetry system for Ocean Discovery XPRIZE

Ping DSP (www.pingdsp.com), developer and manufacturer of the 3DSS™ sonar has developed a deep water version of its 3DSS-DX-AUV sonar for Virginia Tech's DEEP-X program. In conjunction with the DEEP-X Javelin AUV, the 3DSS™ sonar provides high resolution 3D imagery and wide swath bathymetry at depths as deep as 4000m.



Figure 1: 3DSS-DX-450-AUV Sonar package

The DEEP-X team is led by Dan Stilwell, professor of electrical and computer engineering and director of the [Virginia Tech Center for Marine Autonomy and Robotics](#). Dr. Stilwell and his students, Jack Webster and Stephen Krauss are competing in the Shell Ocean Discovery XPRIZE competition and are working to develop a fleet of small inexpensive AUV's capable of quickly producing high resolution bathymetry and imagery maps of the ocean floor. Recently, Dr. Stilwell and his team successfully completed Round 1 of the XPRIZE competition and earned a place in the final round where the remaining nine teams will compete for the \$4 Million dollar grand prize.

Integration of the DEEP-X Javelin and the 3DSS™ sonar provides a versatile combination of leading edge low power ocean technologies ideally suited to the task of high resolution mapping and 3D imaging in the deep ocean. Success in Round 1 has demonstrated the capabilities of this technological integration, as well as the low achievable cost.

Ping DSP's development of a deep water 3DSS™ sonar for the DEEP-X team is part of a broader initiative introducing 3DSS™ to a wide range of AUV applications, from deep ocean bathymetry to shallow water 3D imagery and every application variation in between. The 3D imaging and bathymetry performance,

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compact size, low power consumption and low cost of the 3DSS™ AUV package together with the 3DSS™ Easy Integration Guide make 3DSS™ the most versatile and cost effective solution for high resolution mapping and 3D imaging on platforms ranging from low logistics micro and man-portable AUV's to much larger long-endurance survey or reconnaissance platforms.



Figure 2: Javelin AUV and 3DSS-DX-450-AUV Sonar

For more information regarding AUV integration or the 3DSS™ product line, please email info@pingdsp.com.