



## SENTINEL-3 FLIP MIRROR CAMERA SYSTEM

In 2009 Riverhawk was approached by Sener (<http://www.engineeringandconstruction.sener/>), an Engineering Group, to develop a custom Flex Pivot for a satellite-based application. The Riverhawk Flex Pivot needed to withstand the harsh environments of space, while performing flawlessly at extreme angular deflection. The requirements also dictated this to be an "infinite life" application. The first batch of Flex Pivots were designed, built and thoroughly tested at Riverhawk, before being shipped to Spain for Sener to perform their own extended testing. Riverhawk also continued to do some extended life testing, beyond the standard scope. Flex Pivots were cycled at high angles for more than 50,000,000 cycles, and the results were excellent. Thanks to the quality control, and attention to detail at Riverhawk, the Flex Pivots were able to survive well beyond the intended scope.

Since the original parts were made, some small alterations were made to simplify the installation process into the sub-systems. Parts continued to test well, and eventually in 2016, the true test was performed. The Sentinel-3 was launched, with Riverhawk Flex Pivots aboard. After a few weeks word was passed on to Riverhawk that the system was functioning as designed, and the Flex Pivots were doing their job. Due to the success of the Flex Pivots in the Sentinel-3, Sener and Riverhawk will continue to develop custom Flex Pivots for future space endeavors.

For further reading on the Sentinel-3 satellite, visit the link below:

[http://www.esa.int/Our\\_Activities/Observing\\_the\\_Earth/Copernicus/Sentinel-3/Introducing\\_Sentinel-3](http://www.esa.int/Our_Activities/Observing_the_Earth/Copernicus/Sentinel-3/Introducing_Sentinel-3)

To contact Riverhawk about Flex Pivots, or any custom application, please visit our website, or contact us via email or phone.

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