

PRESS RELEASE

SENER develops the High Gain Antenna Gimbal for the rover of the NASA mission Mars 2020

Madrid (Spain), June 12, 2018 - The engineering and technology group [SENER](#) is contributing to the new space vehicle for the upcoming Mars exploration mission of the National Aeronautics and Space Administration ([NASA](#)), called [Mars 2020](#) or M2020, whose launch date is set for summer 2020.

SENER, which also provided [this same mechanism](#) for the Curiosity rover, used on a previous NASA Mars mission –Mars Science Laboratory (MSL)— will design, manufacture, test and integrate the pointing mechanism for the high gain antenna that allows direct two-way communication between the rover and tracking stations on Earth.

As on the MSL mission, SENER is responsible for the HGAG pointing mechanism in cooperation with Airbus Defence and Space, which is acting as the main contractor for the system that comprises the gimbal and the high gain antenna. The contract was awarded as part of the technology collaboration agreement between NASA and the Spanish Center for the Development of Industrial Technology ([CDTI](#)), and as a continuation of the contribution to the MSL mission.

The pointing mechanism has two degrees of freedom, azimuth and elevation, and is integrated on the rover platform, from where it can point the antenna precisely toward Earth. An actuator moves each axis independently to achieve the required velocity and accuracy. SENER is also responsible for the hold down and release mechanism that provides a mechanical connection during launch and allows the subsequent operation of the antenna in Mars.

This new contract adds up to SENER's numerous projects successfully carried out for the Space sector, where the company has [more than 50 years](#) of activity and is a key player. To date, SENER has handed more than 275 systems and equipment for satellites and space vehicles for space agencies in the US (NASA), Europe (ESA), Japan (JAXA) and Russia (Roscosmos), with 100 % reliability. SENER is one of the leading companies in the ESA's science programs through its engineering contributions; SENER has taken part in more than half of these missions.

SENER is [attending](#) the world congress of telescopes and instrumentation for astronomy [SPIE Astronomical Telescopes and Instrumentation 2018](#), which is taking place in Austin (Texas) until June 15.

About SENER

SENER is a private engineering and technology business group founded in 1956. Its aim is to offer its clients the most advanced technological solutions and to achieve international recognition based on its independence and commitment to innovation and quality. SENER has almost 2,500 professionals across its centres in Algeria, Argentina, Brazil, South Korea, Chile, China, Colombia, the United Arab Emirates, Spain, the United States, Morocco, Mexico, Poland, Portugal, the United Kingdom and South Africa. The group's operating revenue exceeded 910 million Euros (2016 data).

SENER brings together its own Engineering and Construction activities with industrial holdings in companies working in the field of Energy & Environment. In the field of Engineering and Construction, SENER has become a leading company worldwide in the fields of Aerospace; Infrastructure and Transport; Renewables, Power, Oil & Gas; and Marine.

Follow us on:  

Further information:

Oihana Casas. Communications. SENER.
Tel (+34) 918077318 /(+34) 679314085

www.engineeringandconstruction.sener