

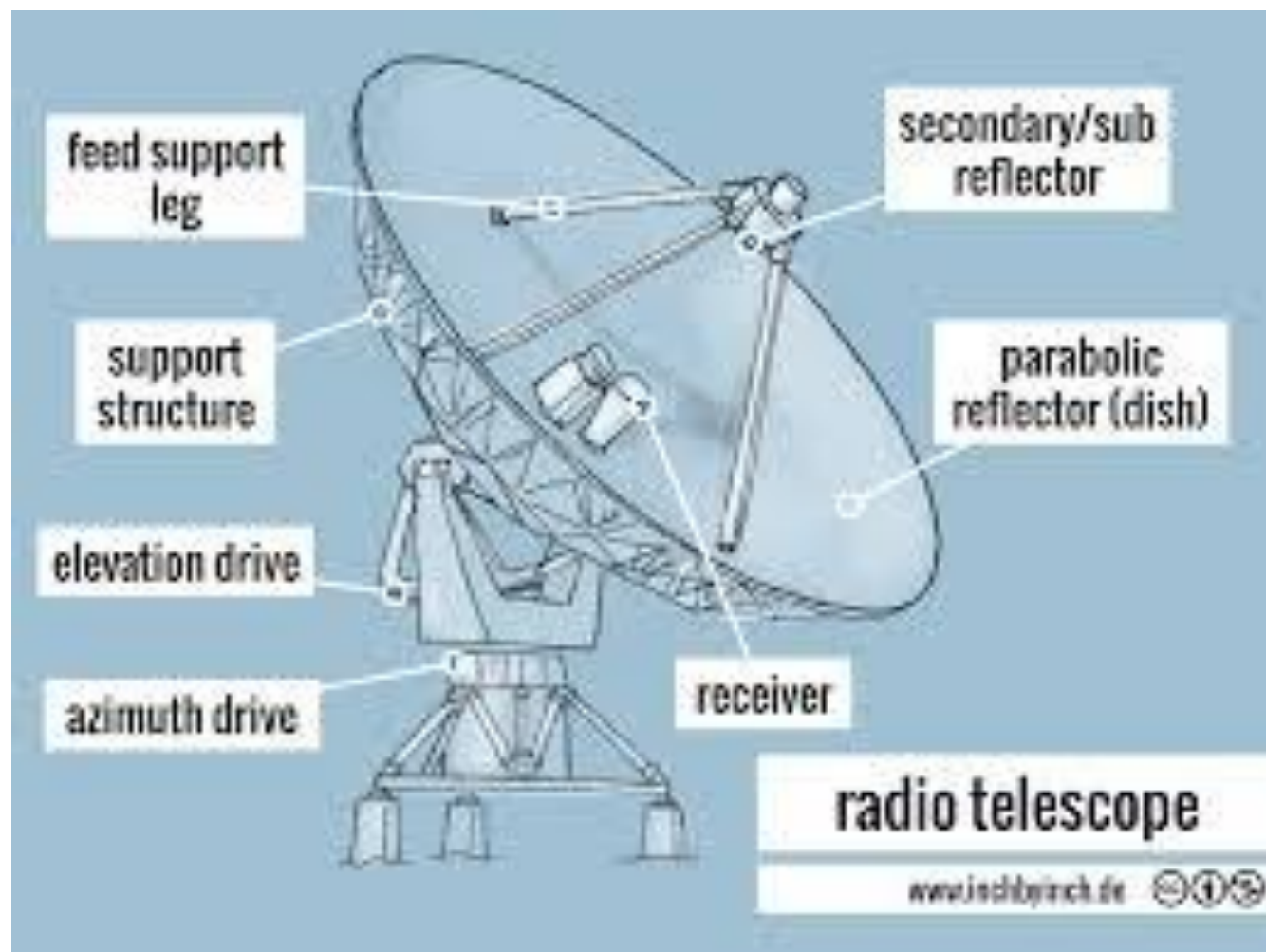
# AVN Training 2019




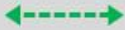
Microwave receiver systems  
Radio telescope: technical aspects

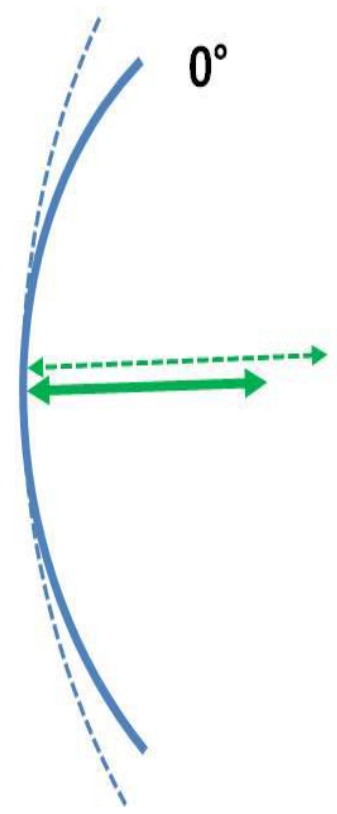
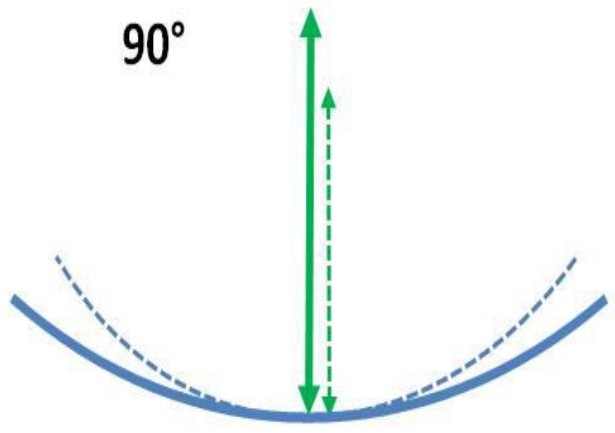


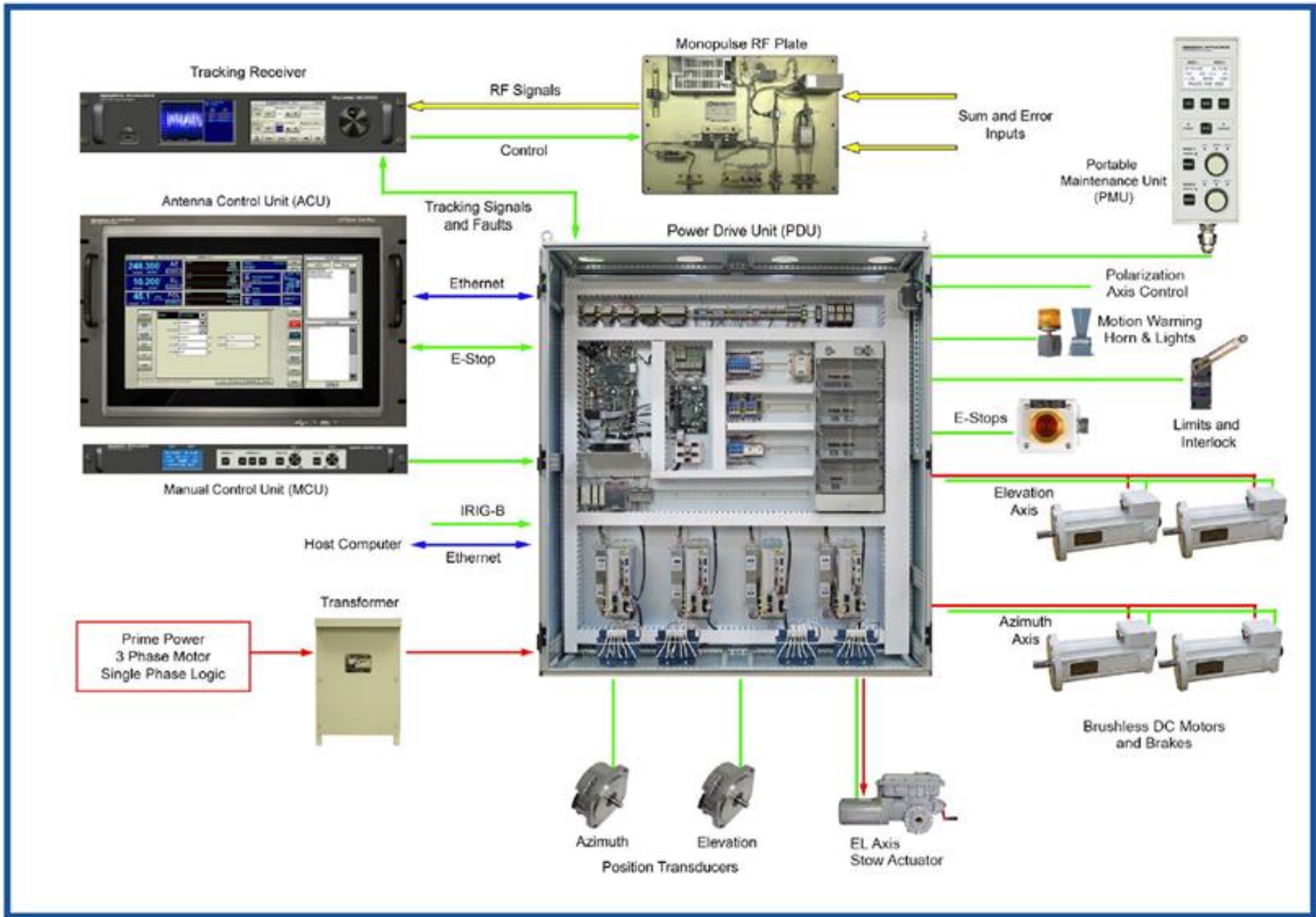
HartRAO

The heartbeat of astronomy



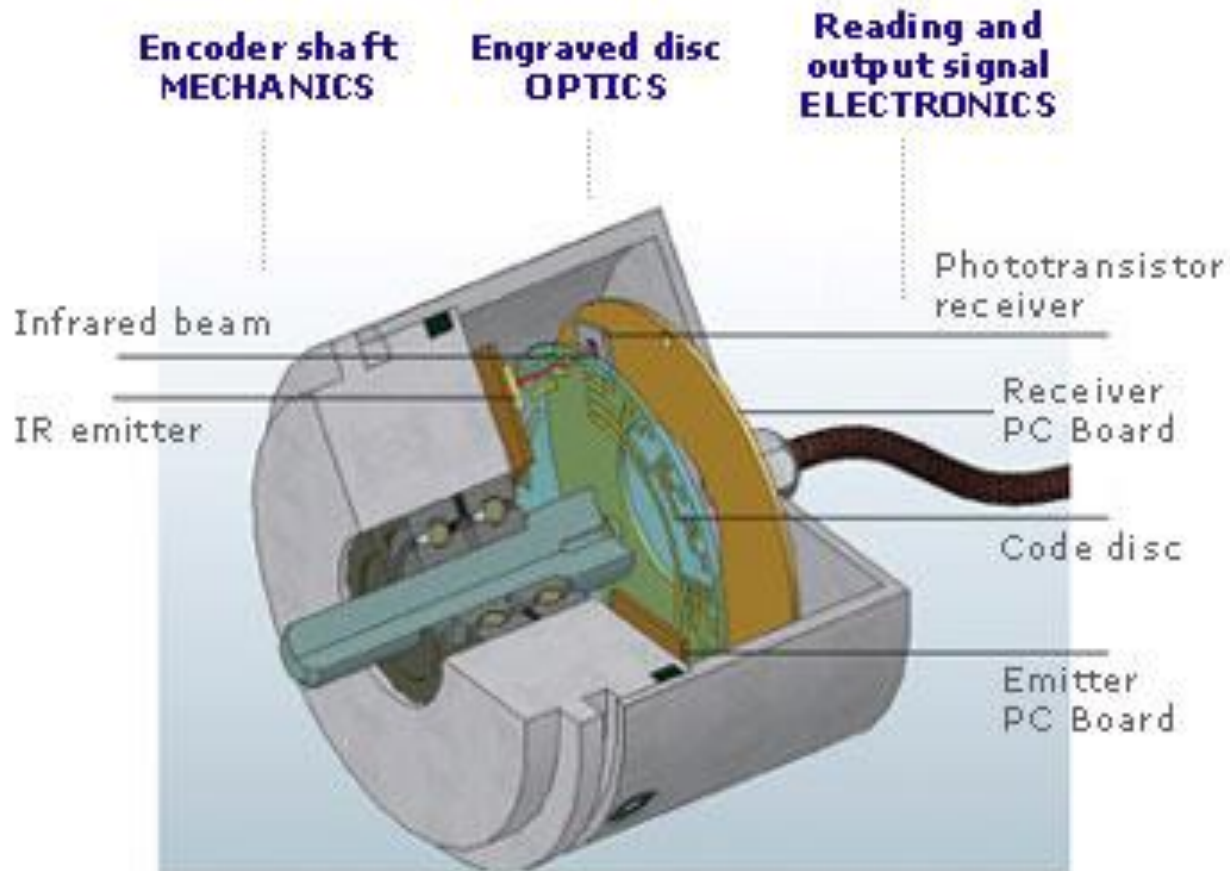
deformed main reflector	
theoretical main reflector	
deformed focal length	
theoretical focal length	



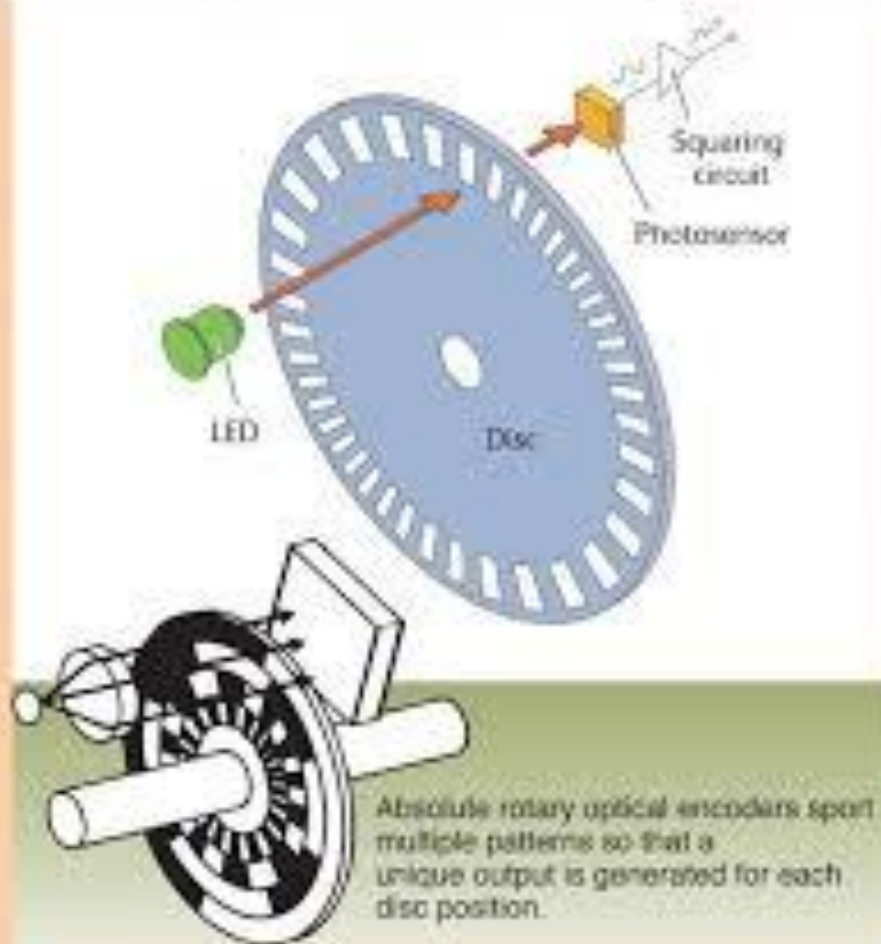






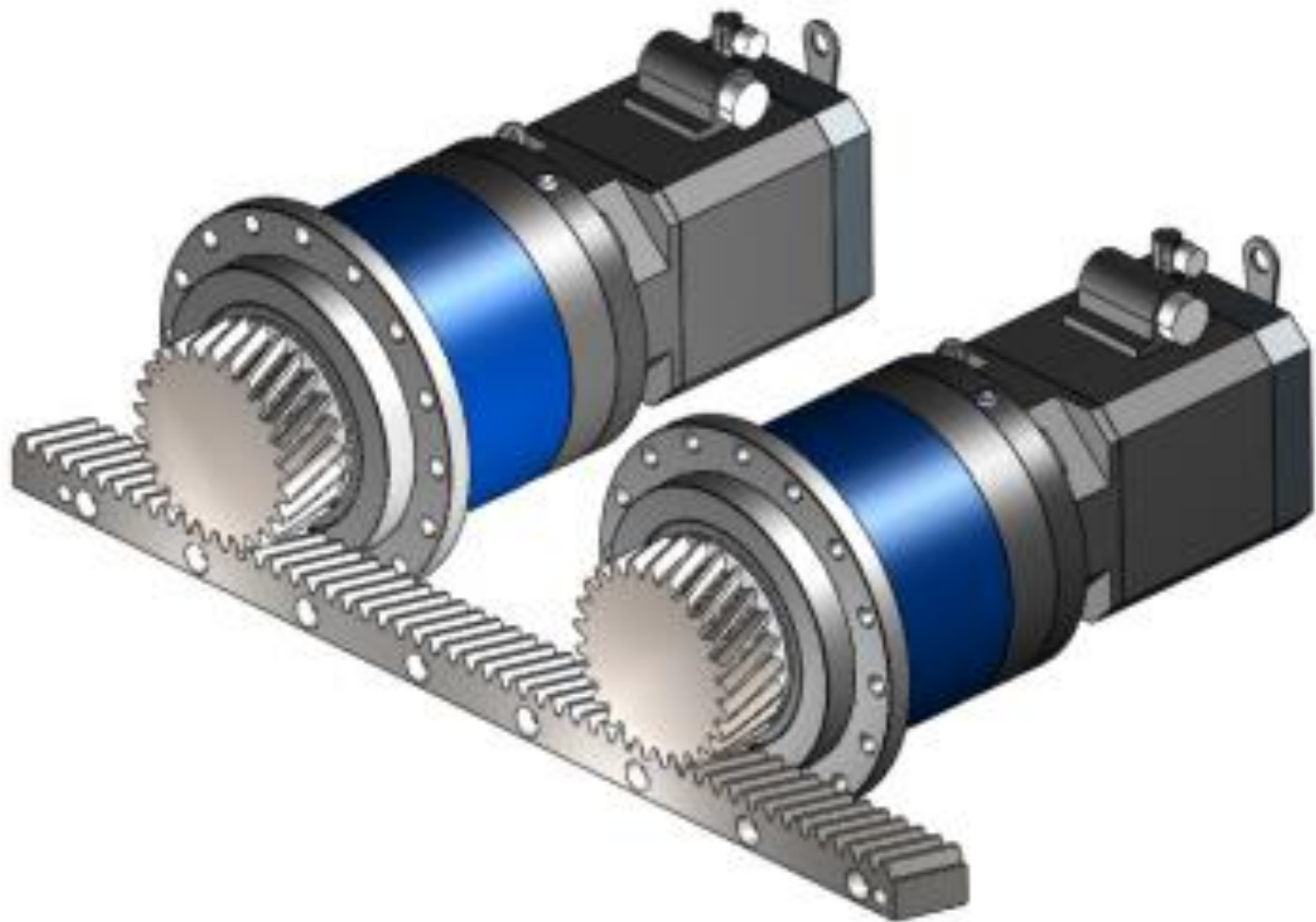


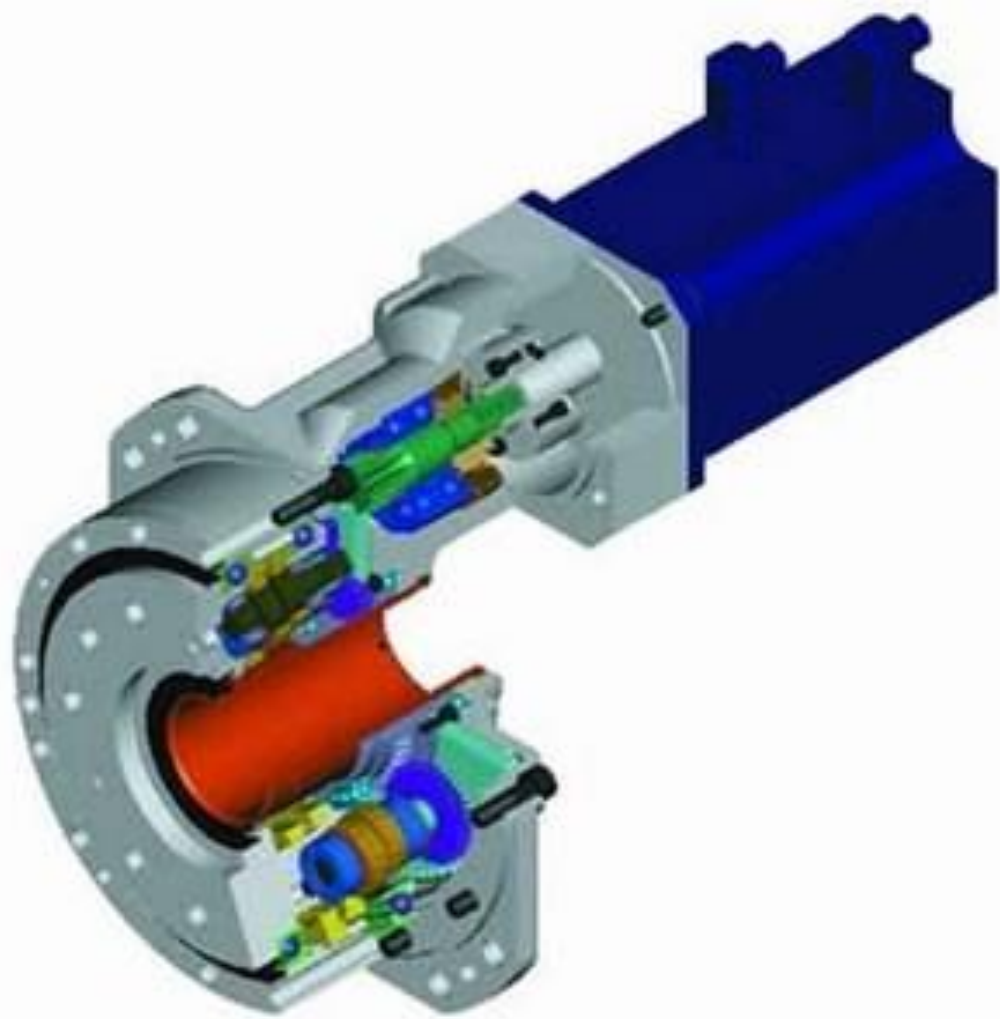
## Basic optical encoder subcomponents

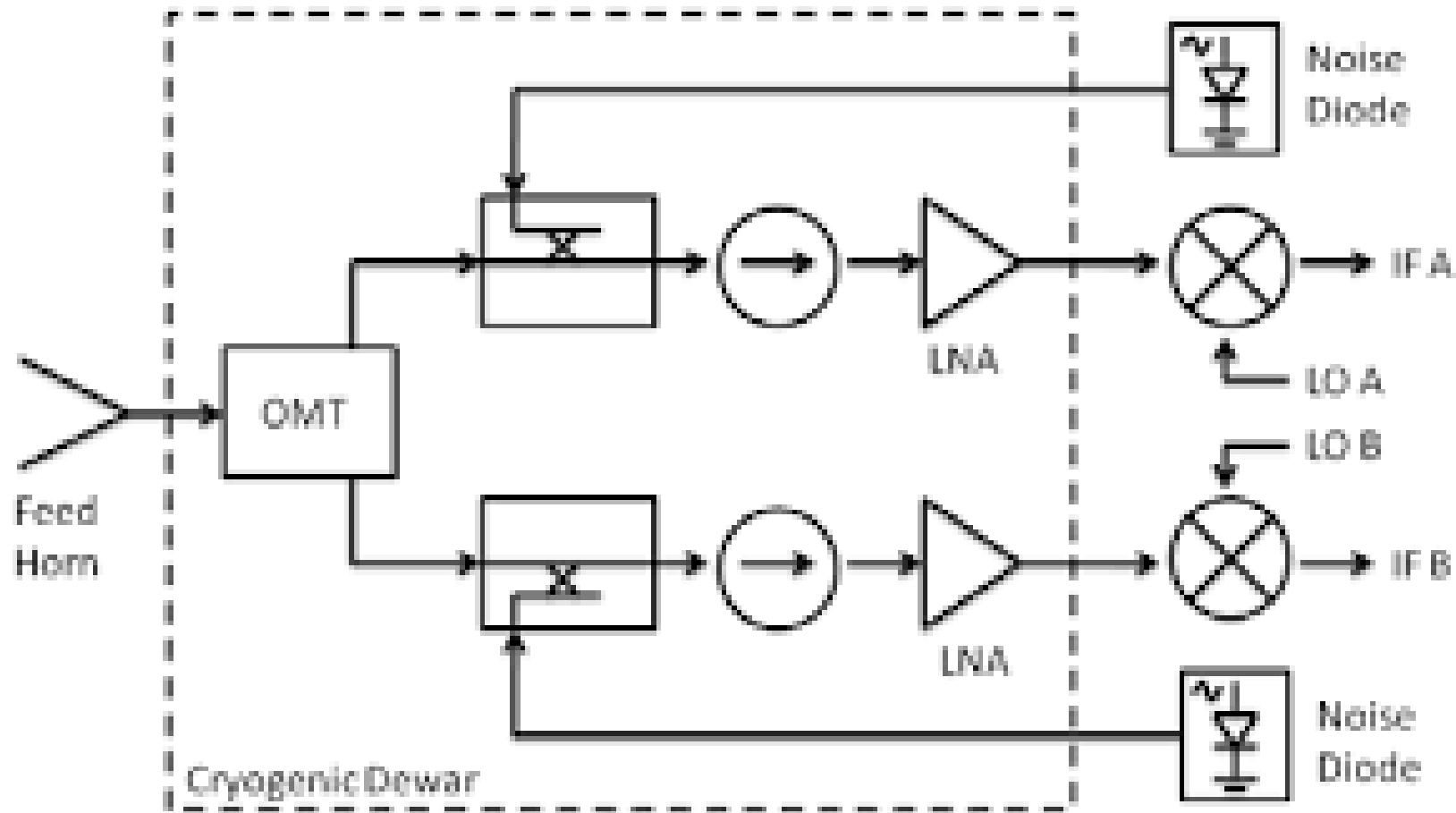












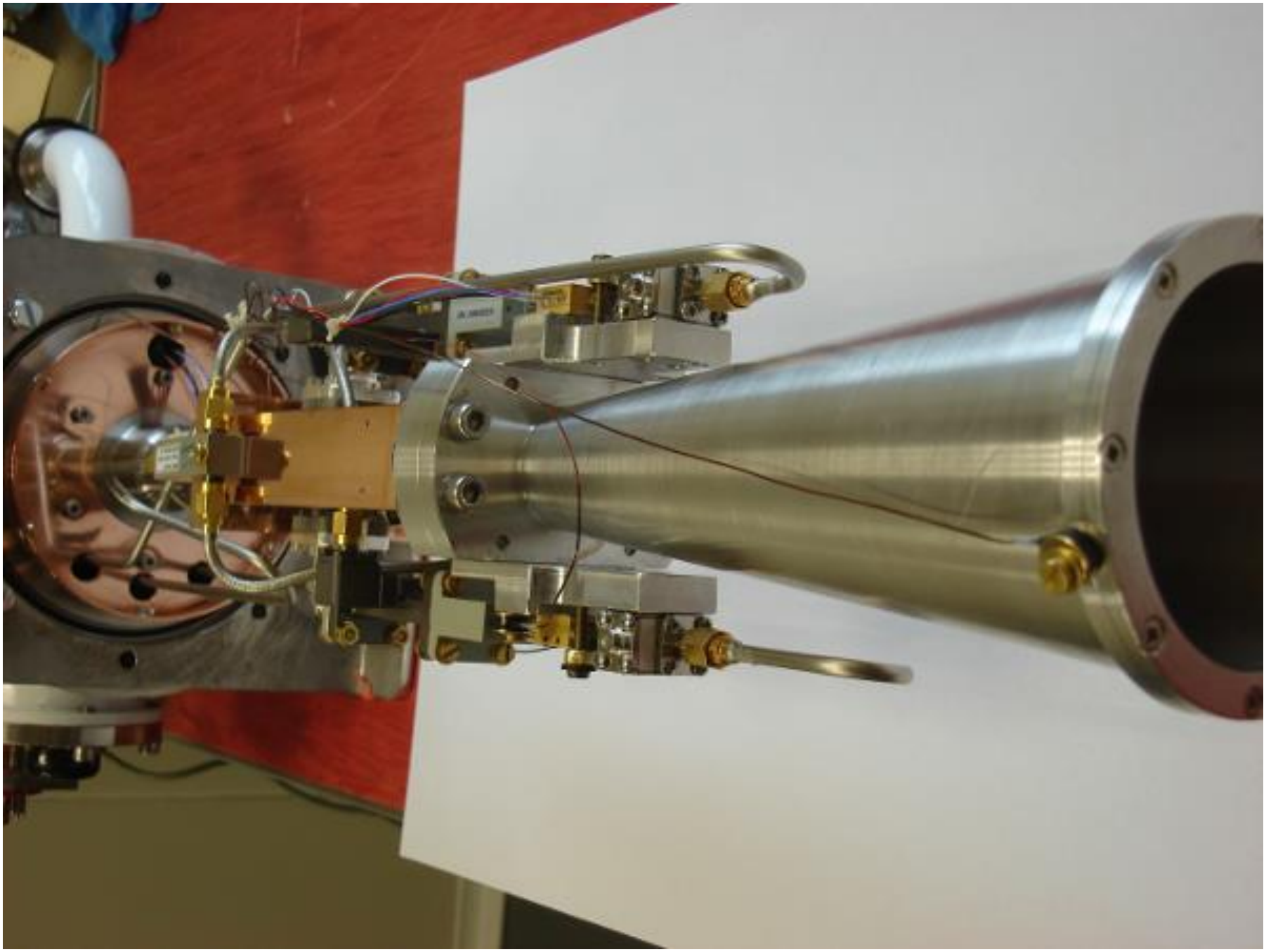


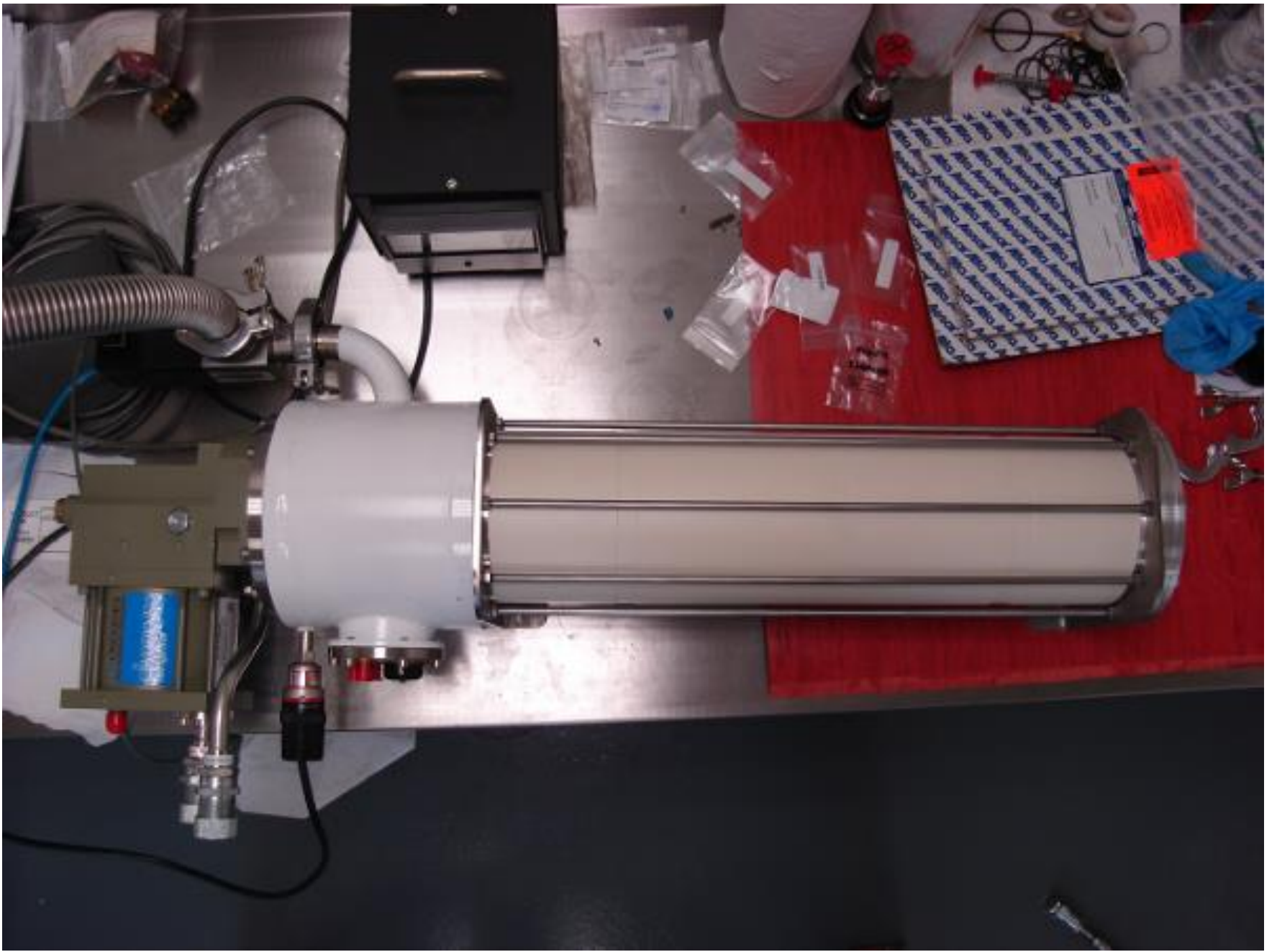


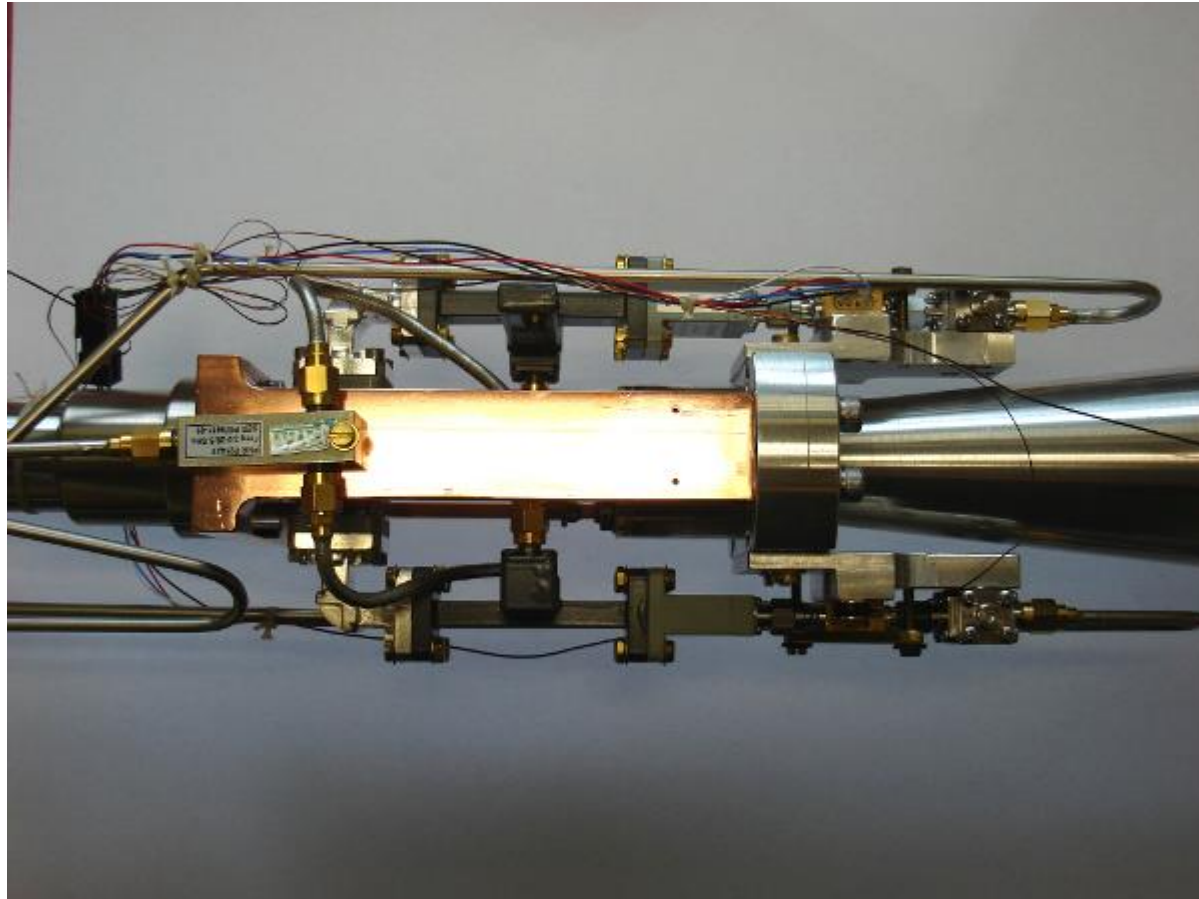




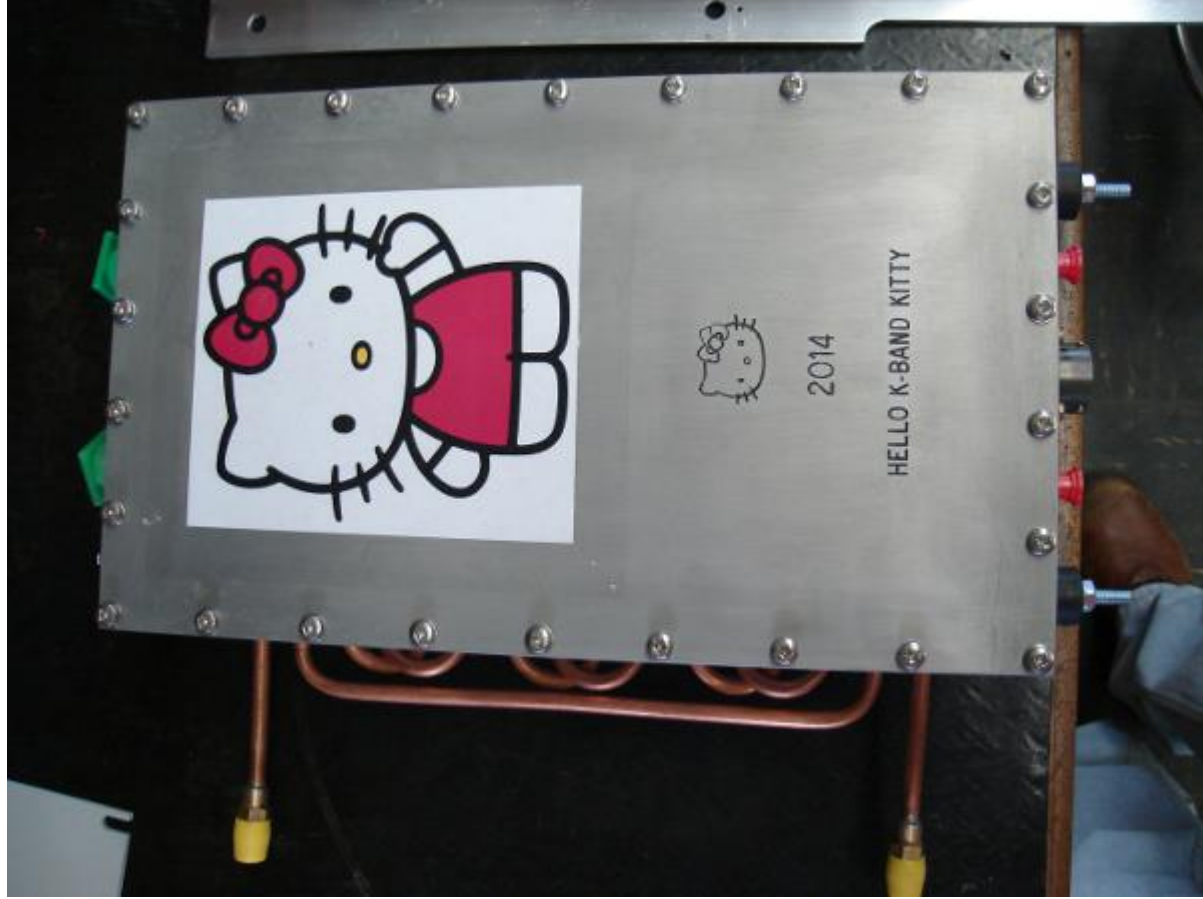




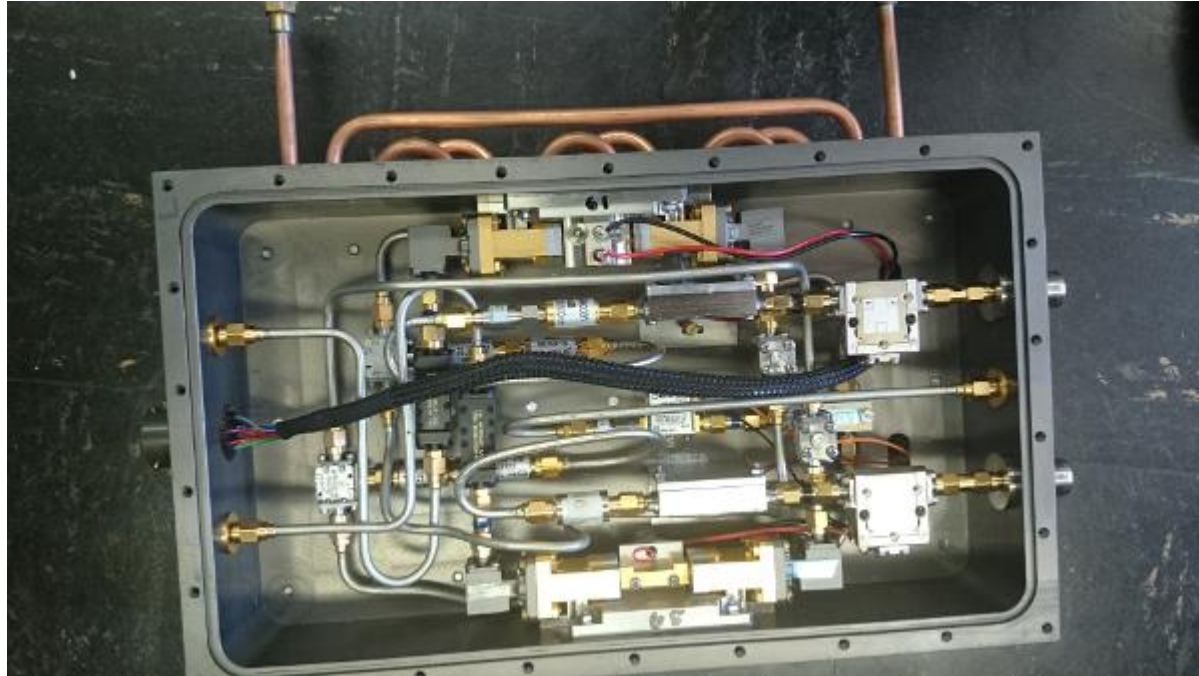












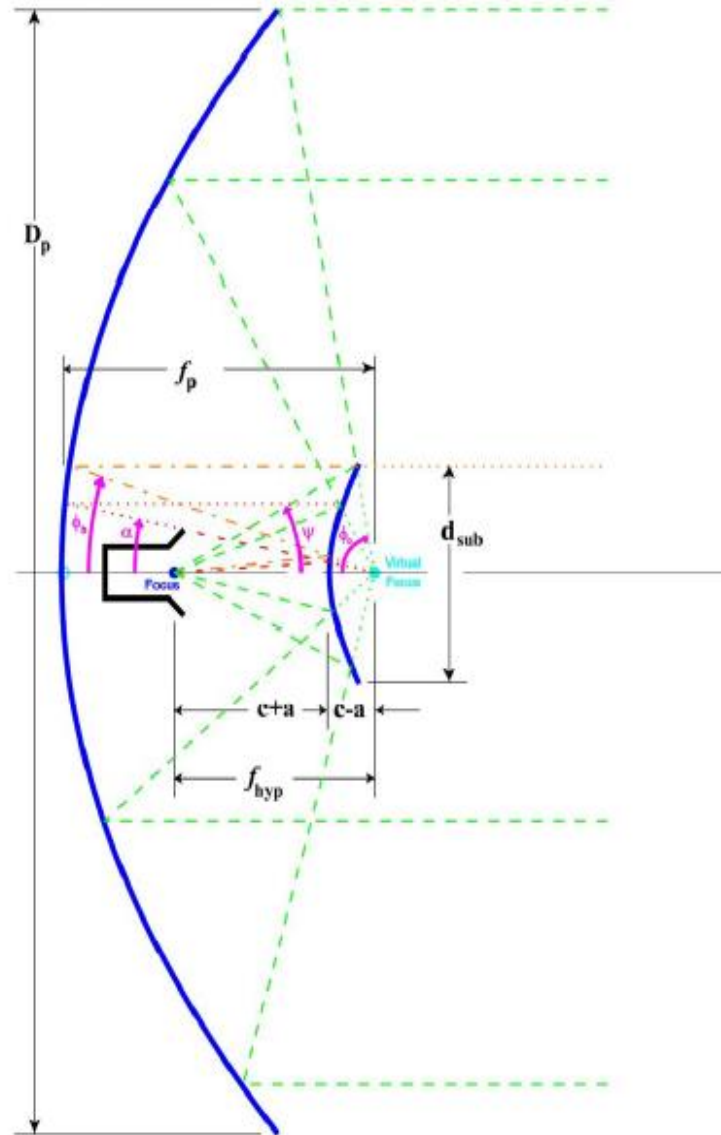
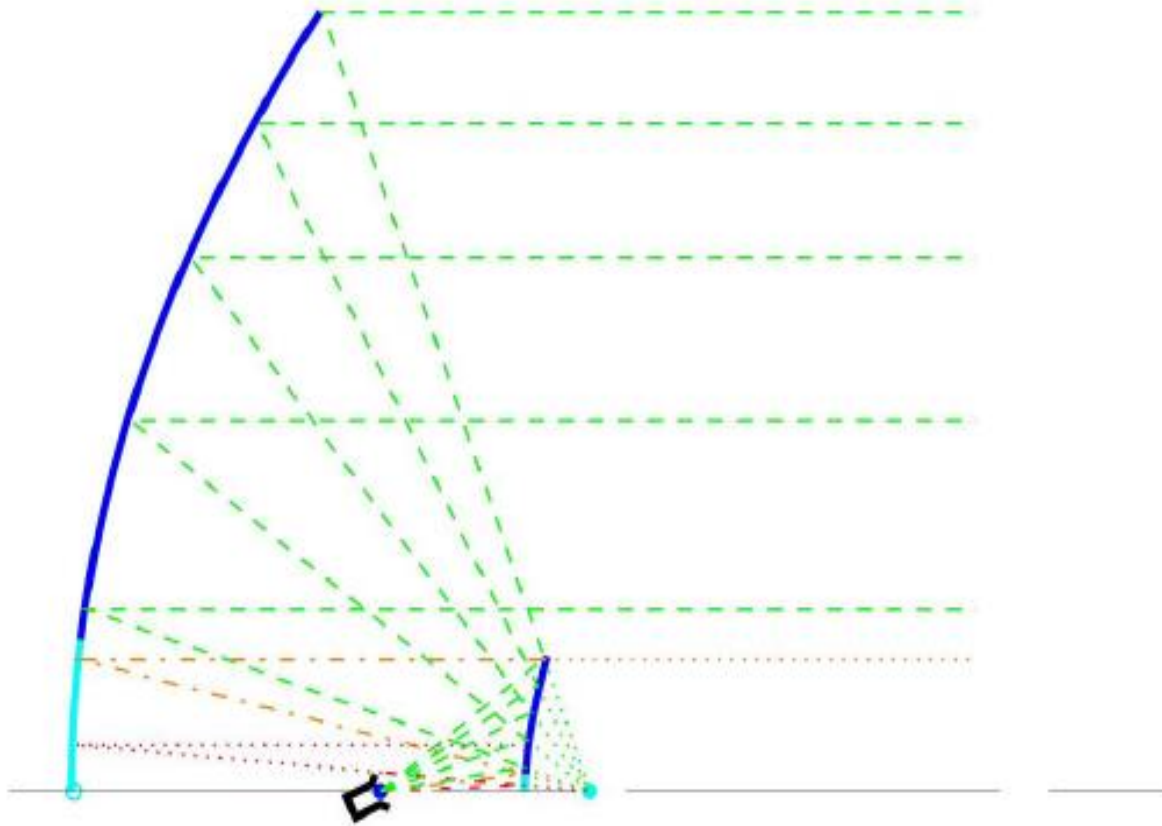
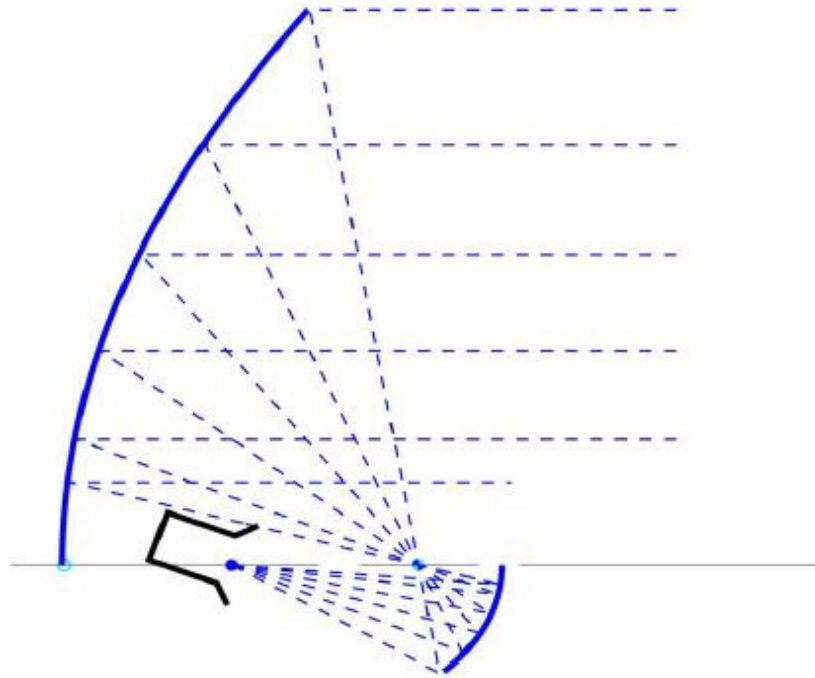


Figure 18 - Cassegrain Antenna Geometry





**Figure 31. Offset Cassegrain Antenna**



**Figure 32. Offset Gregorian antenna**







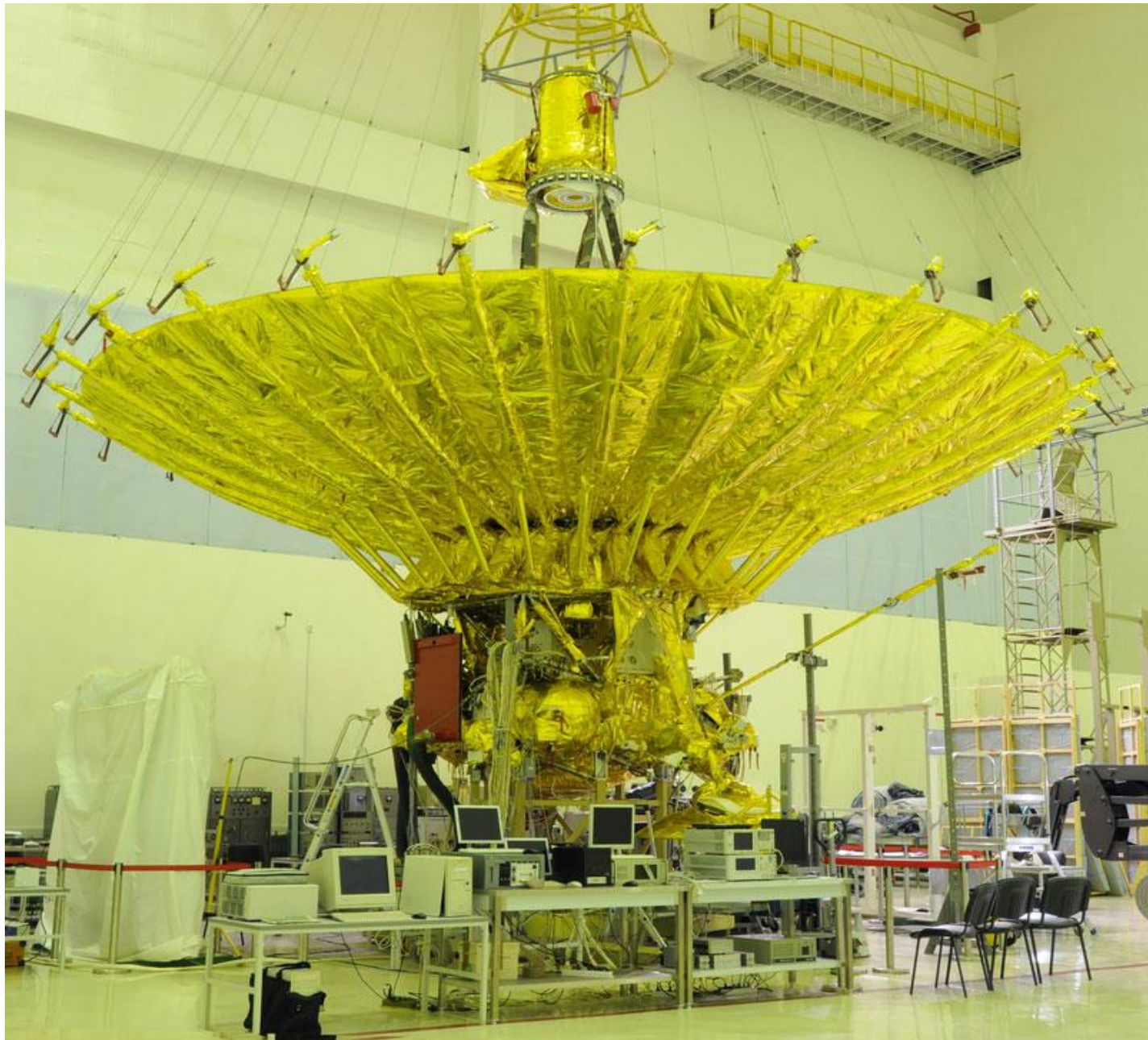






SRT antenna in Lavochkin Association  
(2011)





# Astronomy Picture of the Day

[Discover the cosmos!](#) Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.

2016 September 29



## Five Hundred Meter Aperture Spherical Telescope

Image Credit & [Copyright](#): [Jeff Dai \(TWN\)](#)

**Explanation:** [The Five-hundred-meter Aperture Spherical Telescope](#) (FAST) is nestled within a natural basin in China's remote and mountainous southwestern Guizhou province. Nicknamed Tianyan, or the Eye of Heaven, the new radio telescope is seen in [this photograph taken](#) near the start of its testing phase of operations on September 25. Designed with an active surface for pointing and focusing, its enormous dish antenna is constructed with 4,450 individual triangular-shaped panels. The 500 meter physical diameter of the dish makes [FAST the largest](#) filled, single dish radio telescope [on planet Earth](#). FAST will [explore the Universe](#) at radio frequencies, detecting emission from hydrogen gas in the Milky Way and distant galaxies, finding faint galactic and extragalactic pulsars, and [searching for](#) potential radio signals from [extraterrestrials](#).

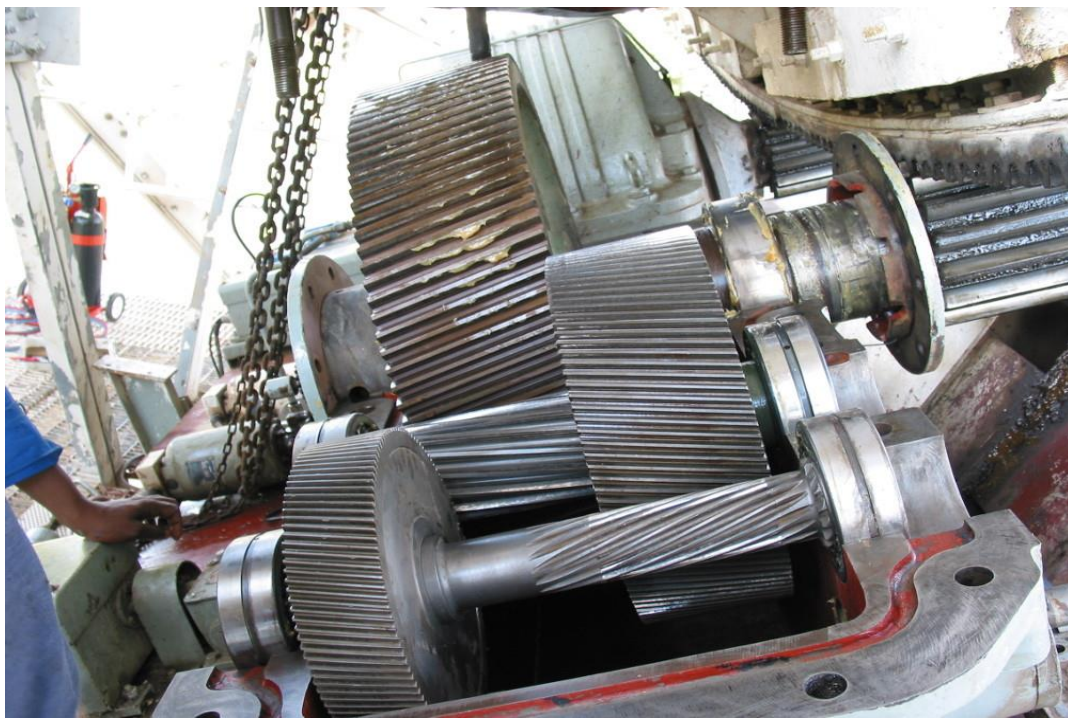
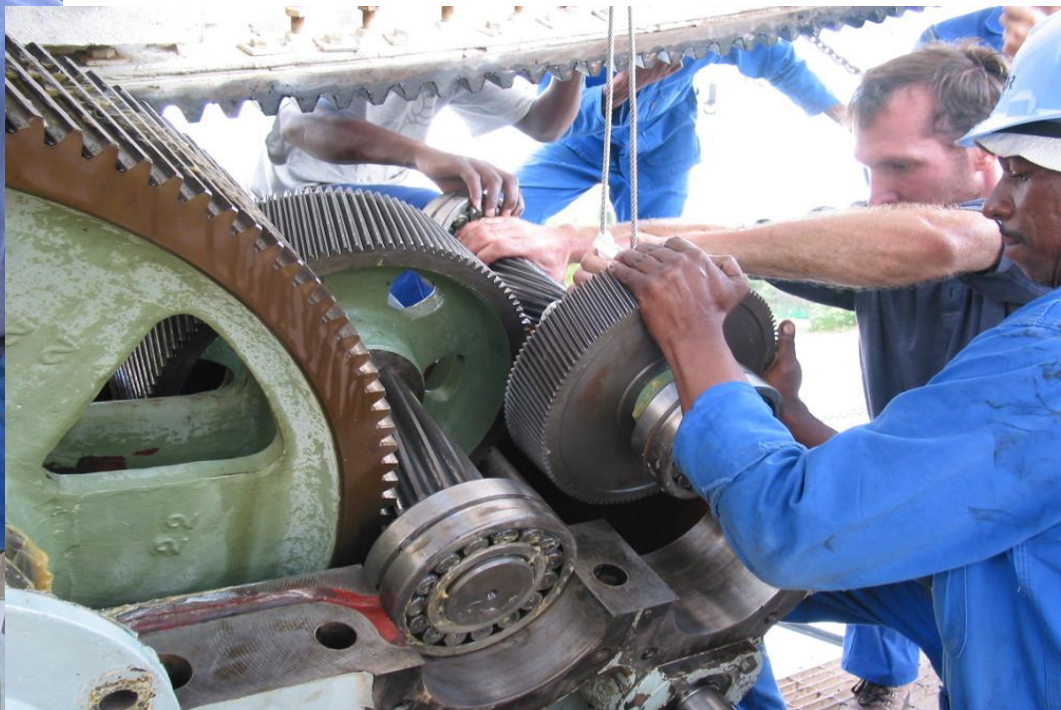


















**FIN**