

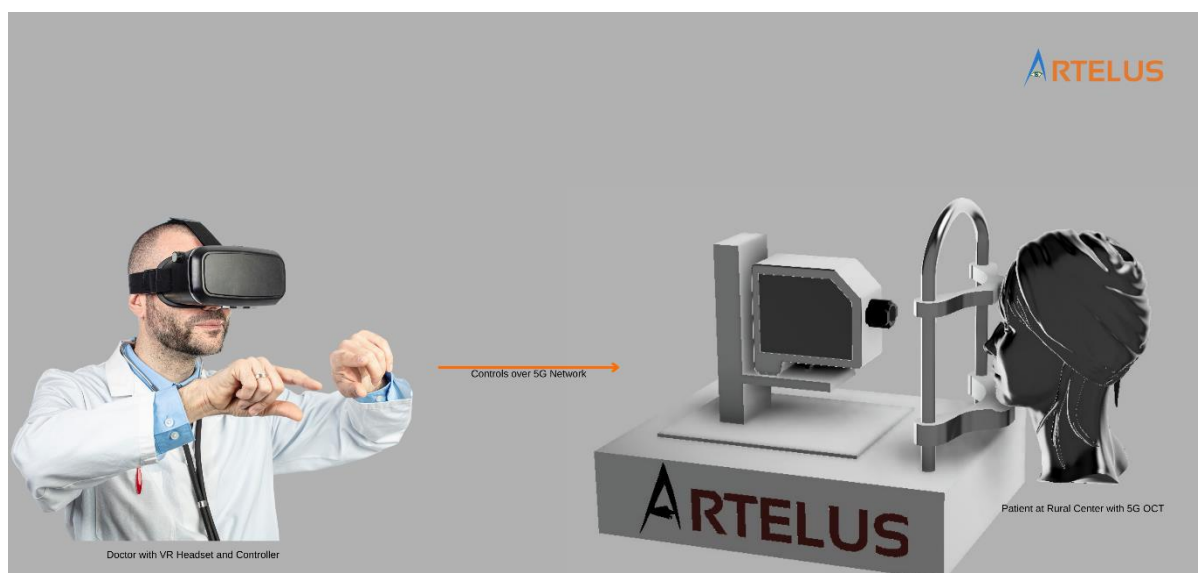
Artelus ArMAC (5G/6G Product)

Remotely operable ophthalmic ecosystems using 5G technology, Artificial Intelligence (A.I.) and Robotics, offer a promising solution to provide healthcare services to patients located in areas with limited access to specialty healthcare.

Due to the low Doctor/Patient ratio and the lack of super-specialty clinics, such as ophthalmology, in rural areas, patients in such areas have to travel long distances to access medical facilities, which is time-consuming, costly and deprives them of their daily wages for the day.

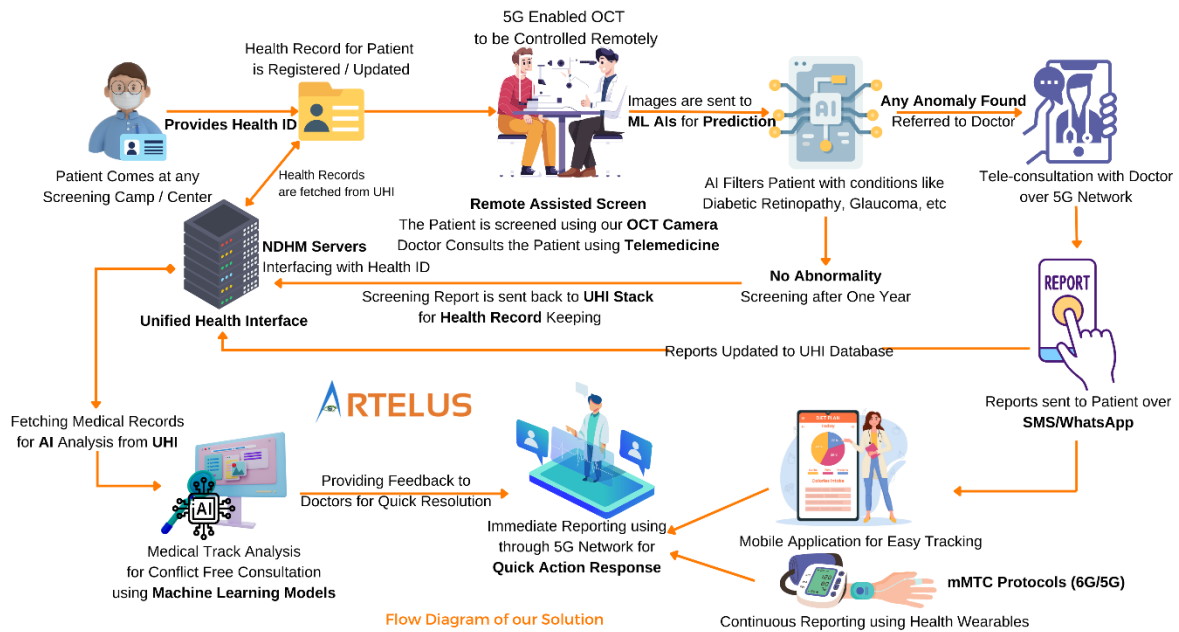
We have created a virtual ophthalmic ecosystem – *5G enabled robotic devices equipped with A.I. assisted screening report generation* - using which, doctors can screen people remotely with the help of the Artelus Multi Axes Controller (ArMAC). This will work with all retinal imaging devices such as a Fundus Camera or an OCT. Patients can visit the local Primary Health Centre (PHC), and a doctor from a distant super-specialty hospital can connect to and operate these portable machines over the 5G network.

The high-speed and low latency of the 5G network enables a near in-clinic experience.



Our pervasive intelligence on-the-edge devices and point-of-care diagnosis using A.I. will assist doctors in making quicker diagnoses. These A.I. services will analyse ophthalmic images and provide automated reports highlighting the location of any abnormality in the patient's retina. This will save time for doctors, helping them with quicker diagnoses, acting as a virtual assistant to the ophthalmologist.

A sample patient journey will be as follows:



The use of 5G and Potential 6G technology coupled with cutting edge AI algorithms will offer several benefits, including:

- Increased access to medical services for patients located in rural, remote and underserved areas
- Reduced travel time and costs for patients, making healthcare services more affordable and accessible
- Improved accuracy of diagnoses, especially for patients with complex eye conditions
- Faster diagnoses due to the use of AI models, allowing doctors to provide timely treatment.

Our solution will bring advancements in this sector and reduce doctor to patient ratio by using virtual screening technology along with teleconferencing for real-like experience over 5g/6G networks.