

Applications of Laser Ranging--A Brief Introduction in Various Industries

Electric Power Industry:

In recent years, with the rapid development of science and technology, laser ranging technology has become the one and best method of space target orbit measurement, to achieve high accuracy measurement and monitoring of space targets. For real-time and efficient monitoring of electric transmission line in power industry, laser ranging technology is becoming a widely used mean to locating fault and ranging of electric transmission lines. Other applications in electric power include power construction maintenance, electric power supply site inspection, electric transmission line inspection etc.



Water Conservancy:

In the process of design, construction and management of water conservancy

projects, surveying and mapping is an indispensable part. By applying the laws of physics, we can choose the appropriate surveying & mapping instruments and method, to accurately measure the terrain and gain hydrologic data, which plays a key role in the process of engineering design, construction and management. For example, in SD ML mode of laser rangefinder, by measuring the burst of two points, we can get the width of the dam burst.



Forestry:

Data collection is used for forest resource inventory, including tree height, height of commercial materials, vegetation mapping, positioning of wild special and excellent tree species, determining the level and economic value of trees in the area, or in conducting cultivation and management research such as pruning, determining the location of trees at specific heights, drawing logging volume profiles, and determining resource boundaries; When considering the method of bundling and stacking timber for harvesting timber, it is very important to measure and map the terrain of the bundling and stacking timber channel, as well as conduct pre

construction survey of roads and rugged paths for general purposes. Various issues (such as cost, accuracy, obstacles, etc.) may be encountered when using conventional surveys, aerial photography, and GPS positioning that were previously available.



Security and Defence:

A security system using a laser range finder that can precisely determine an existence and a location of an intruder, and a method of detecting the intruder using the laser range finder are provided. This includes the inspection of facility, engineering project etc.



Geological Industry:

An airborne radar system with a laser rangefinder module can conduct accurate measurement and analysis of geological survey work in the rivers, lakes and other water bodies by water body information such as the shape, depth., which is the same to mountains, hills and rock by measuring the width, length, height of them.

