

## **HARDWARE**

The hardware part is composed of a PC and a PLC with position sensors.

PC to communicate with PLC and to elaborate images.

PLC to monitor the position, acquire the sensors and communicate with the crane automation.

Laser measurement Sensors range up to 65 m width.

## **SOFTWARE**

The software is based on two main parts, PLC and HMI applications:

PLC to render a 3D image of the scrap yard and to calculate the volume of each box.

## **MAIN FUNCTIONS OF HMI**

- Calculating volumes.
- Division box scrap yard.
- 3D visualization.













