

1. Overview

This report is to uncover the telemetry data that explains four factories from the Daikibo company: Daikibo Factory Meiyo, Daikibo Factory Seiko, Daikibo Berlin, and Daikibo Shenzhen. Each location has nine types of machines that sends a message every 10 minutes. This data has been collected for one month in May 2021 to uncover two major priorities: which location’s machine broke the most and what location had the most broken machines? By using the Tableau software, the “unhealthy” field can be selected to view all instances that shut down in various graph formats. One graph can represent the amount of factories and the total amount of unhealthy instances in each factory while another graph can be created to represent which device types are unhealthy. Both graphs can be inserted into a dashboard that can be filtered together to show which factory’s device type of machine were unhealthy at a certain time. The device type of machines is: AirWrench, CNC, ConveyorBelt, Furnace, HeavyDutyDrill, LaserCutter, LaserWelder, MetalPress, and SpotWelder. In Daikibo-Berlin there are 20 unhealthy instances since there are 20 Furnace unhealthy instances, in Daikibo-Factory-Meiyo there are a total of 110 unhealthy instances, 70 there are HeavyDutyDrill and 40 that are LaserCutter devices. In the Daikibo-factory-seiko factory there are 480 unhealthy instances of the LaserWelder device type. In the Daikibo-shenzhen factory, there are 10 CNC devices, 10 Conveyor devices, 390 LaserCutter and 10 SpotWelder devices making a total of 430 unhealthy devices.

2. Scope

This project consists of analyzing the four factories: Daikibo Factory Meiyo, Daikibo Factory Seiko, Daikibo Berlin and Daikibo Shenzhen. These four factories are being investigated to see which of the nine device types are healthy or unhealthy: CNC, LaserCutter, HeavyDutyDrill, SpotWelder, LaserWelder, MetalPress, Furnace, ConveyorBelt, and AirWrench. The CNC device type is the only device marked with a red X that signifies it is unhealthy because at the time of the picture shown down below, that device is malfunctioning in the Daikibo Shenzhen factory. Every other factory and every other device is healthy.



3. Estimate

An estimate of the total number of hours to complete this project would be between two to four weeks. A few days should be used to create all the needed software to analyze each factory and any faulty machines after each factory is properly maintained. To properly maintain each factory, a lot of development as in making sure each device type should be tested and ran under many circumstances to make sure there would not be many sudden problems in the future. After maintaining the physical equipment in each factory, the software that needs to be integrated and used should take a day to properly monitor each device in the four factories.

4. Timeline

1. [1st of September 2021] **Design starts**
2. [2nd – 23rd of September 2021] Fix the Factories
3. [24th – 26th of September 2021] Create the graphs, dashboards, and notifications for device types in each factory

5. Support

For our customers to trust Deloitte’s services, we would have a 24/7 line of service or chat option on our website for our customers to ask us any questions about our services. On our side, Deloitte would integrate many dashboards, notifications or alerts to show if any problem arises to fix them as quickly as possible to gain the trust of our customers.