

Task 2: Data Analysis

Introduction

Daikibo's tech team has converted all telemetry data collected from the 4 factories of the company:

- Daikibo Factory Meiyo (Tokyo, Japan)
- Daikibo Factory Seiko (Osaka, Japan)
- Daikibo Berlin (Berlin, Germany)
- Daikibo Shenzhen (Shenzhen, China)

Each location has 9 types of machines, sending a message every 10 min. Daikibo has been collecting this data for 1 month (May 2021) and they've just shared this data in the form of a single JSON file.

Problem

The reason this client wanted to collect telemetry was to answer 2 questions:

1. In which location did machines break the most?
2. What are the machines that broke most often in that location?

Solution

Here are the steps that you need to take:

1. Download the 1 year free trial of Tableau. (Link in the Resources, Gmail account works)
2. Install Tableau on your computer and register an account with the same email you used to download the software.
3. Download the daikibo-telemetry-data.json.zip file -> unzip -> and import it in Tableau.
4. Create a calculated measure field "Unhealthy" with the value of 10 for every unhealthy status (representing 10min of potential down time since the previous message).
5. Create a bar-chart: Down Time per Factory.
6. Create new sheet with a new bar-chart: Down Time per Device Type.
7. Create a Dashboard with the 2 previous sheets and set the first chart to be used as a filter (selecting factory in the first chart, shows only the down time of the machines in this factory there in the second chart).
8. Select the factory with the most down time (click on its bar), make a screenshot of the dashboard and upload it as a submission for this task.

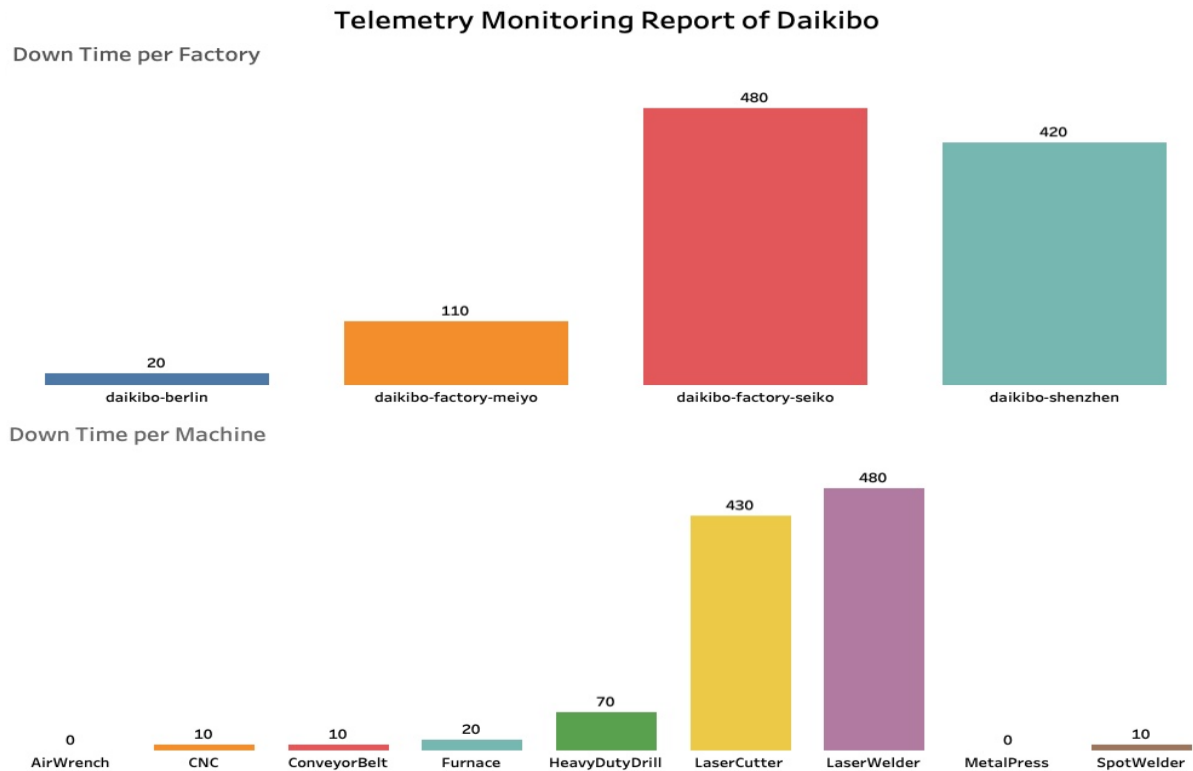


Fig 1. Telemetry Monitoring Dashboard contains two bar chart showing “unhealthy” telemetry data across factories of Daikibo and across their machines, appliances etc., for a period of 1 month (May, 2021). “Unhealthy” data points were calculated by adding 10 to each “unhealthy” status of each machine. We can see that Daikibo Factory Seiko at Osaka location in Japan has the highest number of 480 “unhealthy” points or down times.

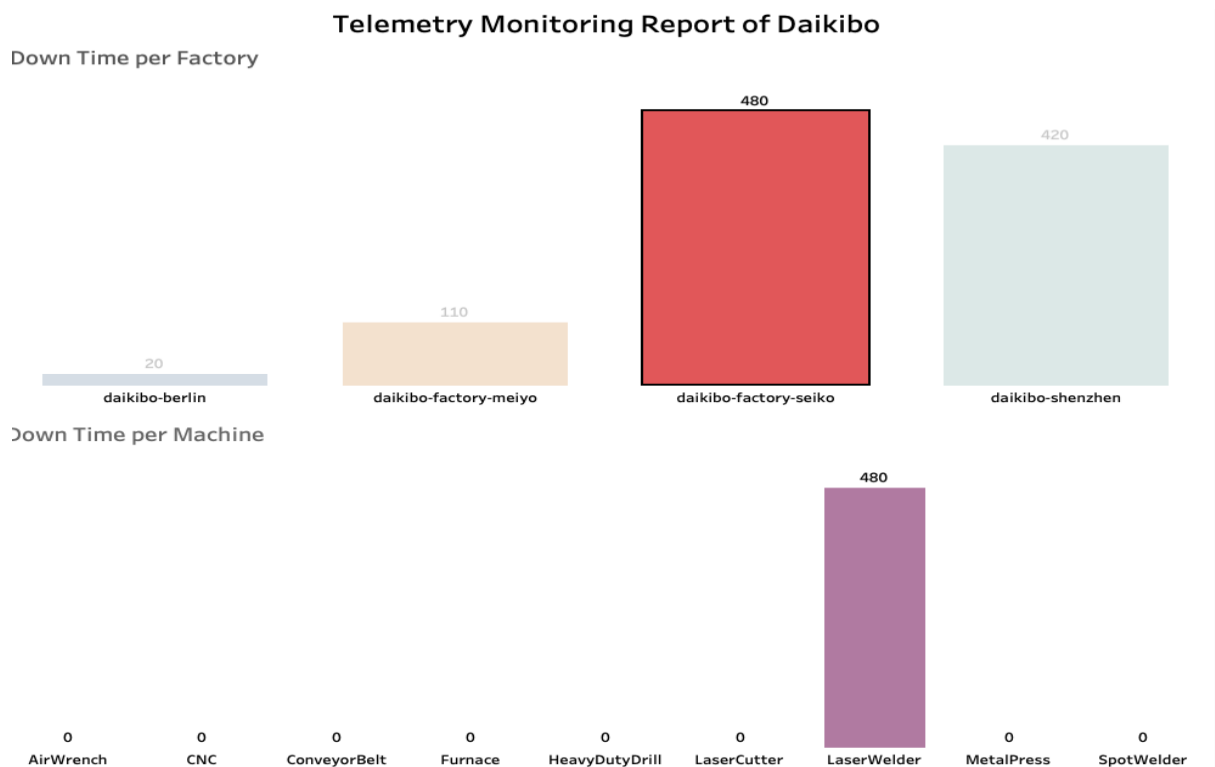


Fig 2: This figure shows down time of Daikibo Factory Seiko per each machine. The highest number of breaks are generated by Laser Welder which are all the breaks registered at Daikibo Factory Seiko.