

Align — Increasing Precision, Reducing Project Timelines, and Mitigating Risk in Data Centers

OVERVIEW

When it comes to data center layouts, accuracy is key. Mapping out the lines that indicate where racks and other data center equipment will be placed is a crucial part of all data center white space build outs and must be accurate up to 1/16".

THE CHALLENGE

Typically, these guidelines are created by hand with multiple professionals and can take several days to complete for larger projects. This can lengthen project timelines, create personal injury risk with long hours and awkward positions, increase the number of professionals required on a job site, and heighten the likelihood of human error.

THE SOLUTION

- ✓ Align partnered with Dusty Robotics, a leader in construction technology, to automate their mapping process. By utilizing Dusty's automated layout technology, the Align team was able to reduce the manpower, timeline, and risk for their projects.
- ✓ Large data center projects are now more efficient due to the automated solution, and fewer professionals are needed on-site for the process.
- ✓ When supply chain challenges arise the team is able to continue with installation of equipment on hand because of the accuracy of Dusty's layouts – when typically, delayed equipment would bring the project to a standstill.



One piece of ledger was delayed by almost three months. We had to install all of the supporting infrastructure above it, including the pipes coming down from the ceiling, two months before the gear arrived. Without Dusty, we wouldn't have felt confident about the accuracy, and any misalignment could have resulted in significant rework.



David Donato
Director of Data Center
Design and Construction

THE RESULTS

On a recent large-scale project, the Align team leveraged Dusty's robotic mapping solution to install 384 racks in six rooms (2,304 total). The precision and speed of Dusty's technology allowed the team to complete the layout and installation accurately and quickly, ensuring the proper fit for all equipment including the 1/16" tolerance necessary for the installation of prefabricated materials.

This automated layout approach resulted in a significant efficiency boost, saving 784 hours and reducing the need for 18 layout crew members.

Through Align's partnership with Dusty Robotics, build sites are safer for professionals, our teams remain agile when encountering supply chain challenges, and we complete projects within the timeframe set out with our clients despite the scale of the facility.