

### Challenge Statement

Industry 4.0 has revolutionised and every industry is keen to transforming itself into a smart industry. Organizations are utilising the benefits of IoT and lifting their businesses to the next level by implementing smart solutions in manufacturing processes.

When it comes to the Internet of Things, it is currently becoming a fast-adopting and even faster-evolving technology. IoT has become -"the technology" for organisational effectiveness as a result of the large availability of sensors, affordable connectivity, scalable platforms, processing and storage capacities of enormous structured and unstructured data, and enterprise IoT solutions. Businesses are increasingly turning to technology companies and service providers for novel solutions on how to connect things to the Internet and radically modify their company operations.

Imagine yourself to be the CTO of Smart IoT Solutions and the director from a steel manufacturing industry has approached you to increase the efficiency of their manufacturing process with the help of IoT. As a CTO of Smart IoT Solutions, you along with your team has to build a prototype of an innovative IoT solution that collects data, monitors the hardware and sends the data to perform a certain function. If the director is satisfied with your prototype he will place an order with you.

#### Plan/Create/Test

1. Discuss with your team and understand the user requirements.
2. With your team, brainstorm ideas regarding what you wish to build. Discuss and develop a design, sketch and label it in detail.
3. Follow your plan and build your prototype as you create a potential solution.
4. Once it is created, test your model to evaluate the effectiveness of the solution.

#### Improve

After discussing and evaluating your results as a group, discuss ways that you could improve your work. Try to make at least one improvement and check if it was beneficial.

#### Class Discussion/Wrap-Up

1. Present your solutions to the class and discuss the concept behind the prototype.

2. Compare your design to those of other groups. How did your design compare with other groups? What were the things you did differently and what aspects would you like to improve in your prototype?
3. Evaluate the project that is more creative and fun, understand what factors behind the successful output and why?

### Explore More

1. What do you think are the advantages and disadvantages of IoT?
2. What do you think will happen if there is no Technology in our lives?

