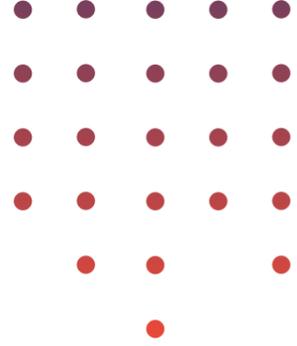


Luffy AI:
From constant change
to adaptive control

Transforming your industrial processes



Time to take **control**



Your industrial control systems undergo constant change. Whether that's raw material inconsistencies, machine degradation over time or environmental changes.

Conventional control systems are inflexible, meaning they are ineffective at dealing with these types of variations. Today's factories require technology that responds to production data in real-time. Otherwise, productivity levels, product quality and your sustainability efforts are all impacted.

Existing AI technologies struggle with the transition into physical hardware. In order to deal with the uncertainty, they require a large amount of data and computational expense. The result? For those wanting a robust AI control system, many current AI options fall short.

But what if you could easily and quickly take control of your industrial processes, right now?

Say hello to Luffy AI.

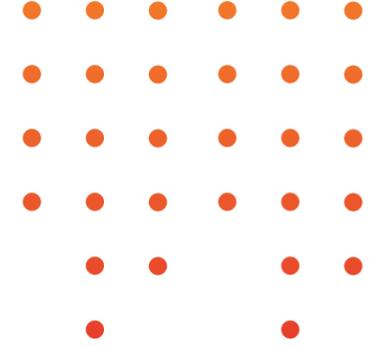
Through adaptive control, Luffy AI lets you extract the full potential from your industrial equipment.

Take effortless control of your manufacturing operations, by ensuring your system reacts and adapts to any changes in real-time.



“Luffy AI is the **most credible** team on the market.”

Ben Halford, CEO of Surface Generation



Adapt to change, **instantly**

As an ambitious industrial business, you face a number of key priorities:

1. Productivity
2. Quality
3. Sustainability

How does Luffy AI help you achieve these objectives?



Powerful productivity gains

In a challenging commercial environment, margins are tight and global competition is tough - every efficiency improvement counts.

Power up your plant's productivity with Luffy AI. Adaptive control ensures higher control accuracy and improved cycle times can be maintained - and with significantly less human input. The result? Less scrap or rework, less time spent on machine setup and increased yield.



Assured product quality

Not being able to react fast enough to manufacturing variables can hit your operations hard, in terms of both waste and cost.

Adaptive control lets you achieve tighter tolerances from your processes. It improves product quality by instantly adapting to changes in operating conditions, ensuring consistent and reliable process outputs. Reduce wastage by avoiding costly scrap, and improve your yield.



Smarter and more sustainable

As an energy-intensive industry, you're facing pressure from investors and society to slash carbon emissions, as well as ambitious ESG targets to reach.

With Luffy AI, you can balance sustainability with profitability. Optimise your process for additional business goals such as reduced energy consumption and resource usage. Improve your green credentials, lower emissions, reduce waste and accelerate your business towards its ESG commitments.

Best of all, by improving these three key objectives, you also achieve two other key business goals.



Boost profit margins

Improving the productivity, quality and sustainability of your manufacturing processes, increases the overall profitability and competitiveness of your business. Freeing up budget for other investment priorities, such as market growth, improving customer experience and new market expansion.



Greater agility

In manufacturing, speed to market and production costs can make or break a company. The increasingly global nature of business, complex supply chains and Industry 4.0 trends such as just-in-time manufacturing all demand agility.

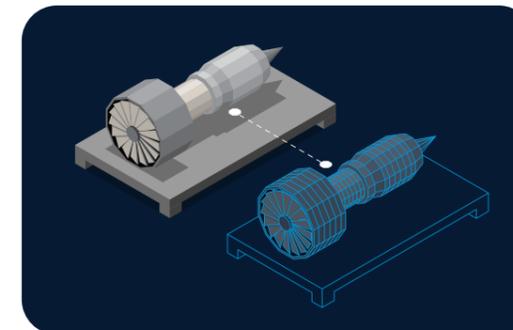
With our AI controllers, speed and agility can become a key competitive advantage for your business. For example, it allows you to repurpose equipment according to customer demand, and easily switch product grades as required.

How does **Luffy AI** work?

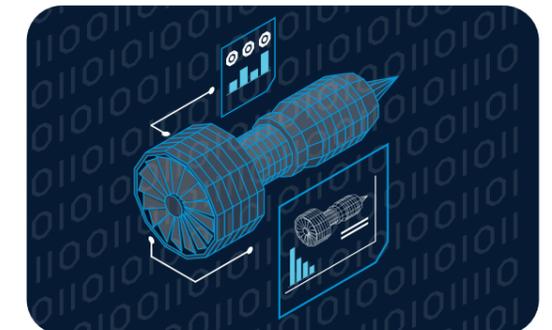
Our technology has been designed to unlock the true potential of your control systems. It allows you to easily take control of your equipment and processes, driving powerful new efficiencies and yield improvements.

Here's an overview of how Luffy AI empowers your control systems to react and adapt to changes in real-time.

4 simple steps to adaptive control



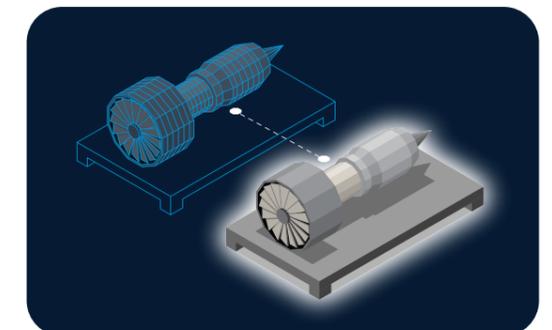
1. First, we develop a super efficient digital twin of your physical asset or process. This replicates your asset in a virtual environment, including its key features, functions and behaviours.



2. In this virtual environment, we develop and train our adaptive AI control, simulating thousands of scenarios, in order to truly expand the scope of your hardware's operation.

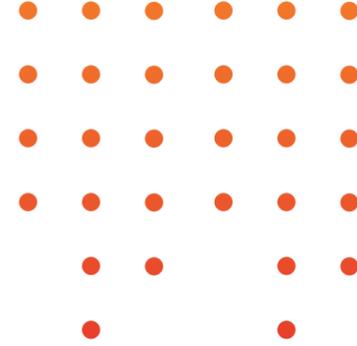


3. Running simulations for different scenarios, we validate the improved performance that our AI controller can bring to your process - ensuring we target your key value drivers.



4. Finally, when deployed, our cutting-edge robust AI algorithms continuously adapt at the edge, fine-tuning and optimising performance in the face of an ever-changing industrial environment.

What does working with us **involve?**



We know how powerful adaptive control can be - and now you have the chance to benefit from its incredible potential too.

But how do we approach this process? How do we determine how to drive the biggest impact for your industrial control systems?

Here's what you can expect when working with us.

Assess

We begin by taking the time to understand your manufacturing processes, including key value drivers and pain points. Once these have been identified, we determine where AI can achieve the greatest impact, documented in a full proposal.

Discover

Next, we develop a super efficient digital twin of your physical asset - developing, training and validating our AI control software in this virtual environment. Now we have proven results in digital simulation, demonstrating the impact our AI control can have on your process.

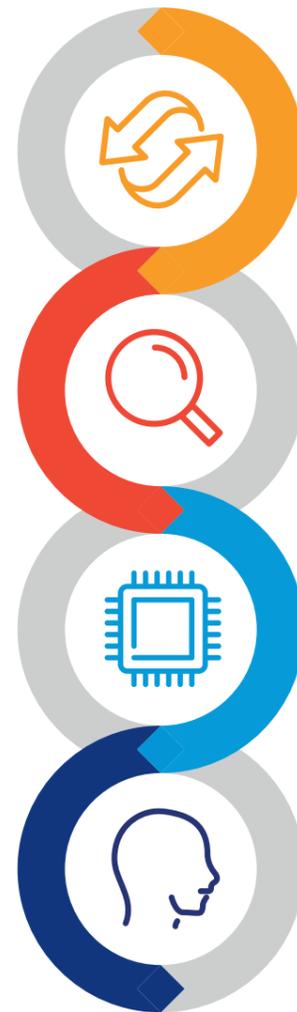
Trial

We'll work with you to prepare your existing software and hardware for AI integration. Now we can demonstrate real-world results.

Deploy

With verified real world results, our AI controllers are ready to be deployed across your equipment. Congratulations! You've successfully realised the true potential of your control systems.

From constant change...



...to adaptive control

Adaptive control **success** for Surface Generation

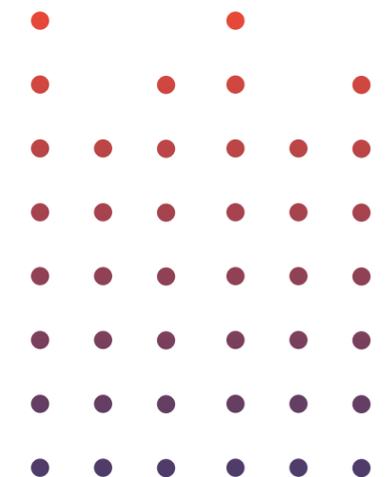
A world leading injection moulding and composites tooling OEM for the automotive and aerospace industries, Surface Generation produces best-in-class hardware for accurate tool face temperature control in thermal moulding applications.

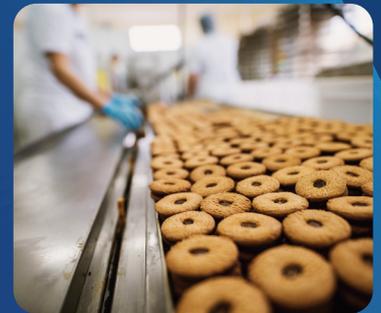
Surface Generation's injection moulding operations are complex and non-linear, requiring an expert operator to frequently tune the control system. By implementing our adaptive technology, they were able to ensure better out of the box performance for new users. The AI controller allows the machine to consistently meet product tolerance parameters, whilst minimising energy consumption, all without the need of expert operator input.

Not only did we improve the system's temperature tracking accuracy, but its robustness to variations in mould tooling, raw materials and the environment too.

The result?

-  **10%** increase in energy efficiency
-  **33%** reduction in compressed air usage
-  **40%** improvement in temperature tolerance
-  The decision to implement **adaptive control** across the business' main production line





Are you ready?

Optimise the productivity, quality and sustainability of your processes, while maximising profit margins and unleashing greater business agility too.

Unlock the true potential of your industrial processes with Luffy AI.

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