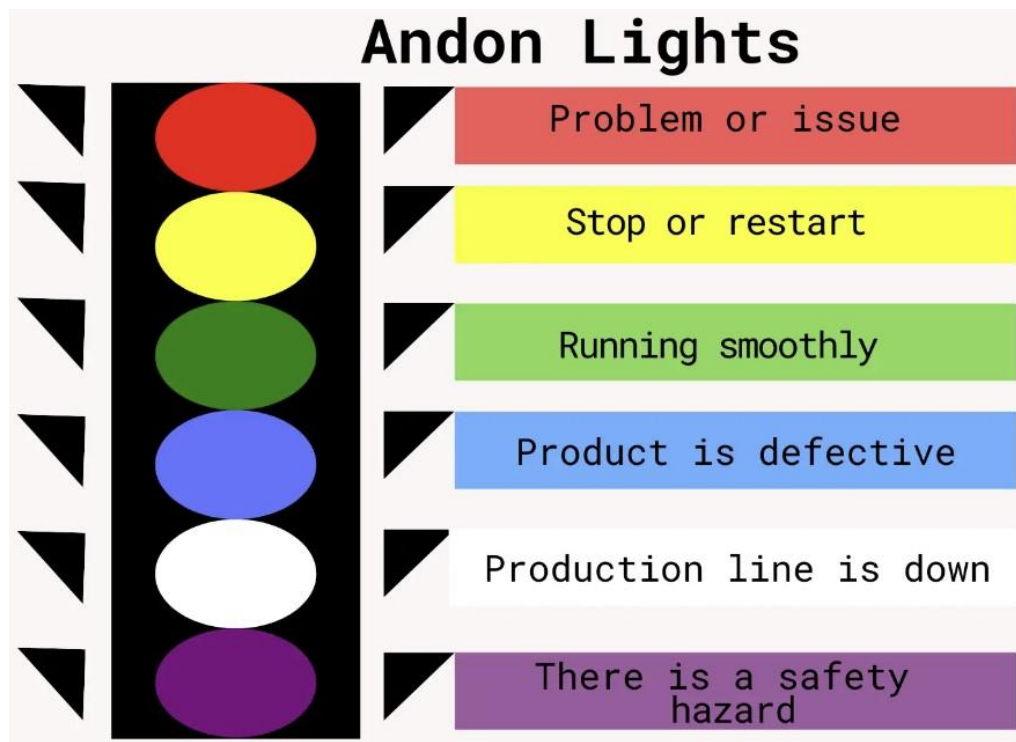


Study Guide: Andon



Andon Basics

The primary purpose of an Andon system is to provide immediate feedback on the status of work, detect abnormalities, and facilitate timely intervention to address issues.

Originating from the Japanese manufacturing philosophy of "jidoka" (autonomation) and the Toyota Production System, the term "Andon" itself is derived from the Japanese word for "torch" or "lantern." Just as a lantern signals the need for attention or assistance, an Andon system visually signals the need for intervention or action in a production process.

- Andon = Torch
- It involves various color schemes
- Function:
 - Helps identify problems early
 - Contribute to the efficient movement of people

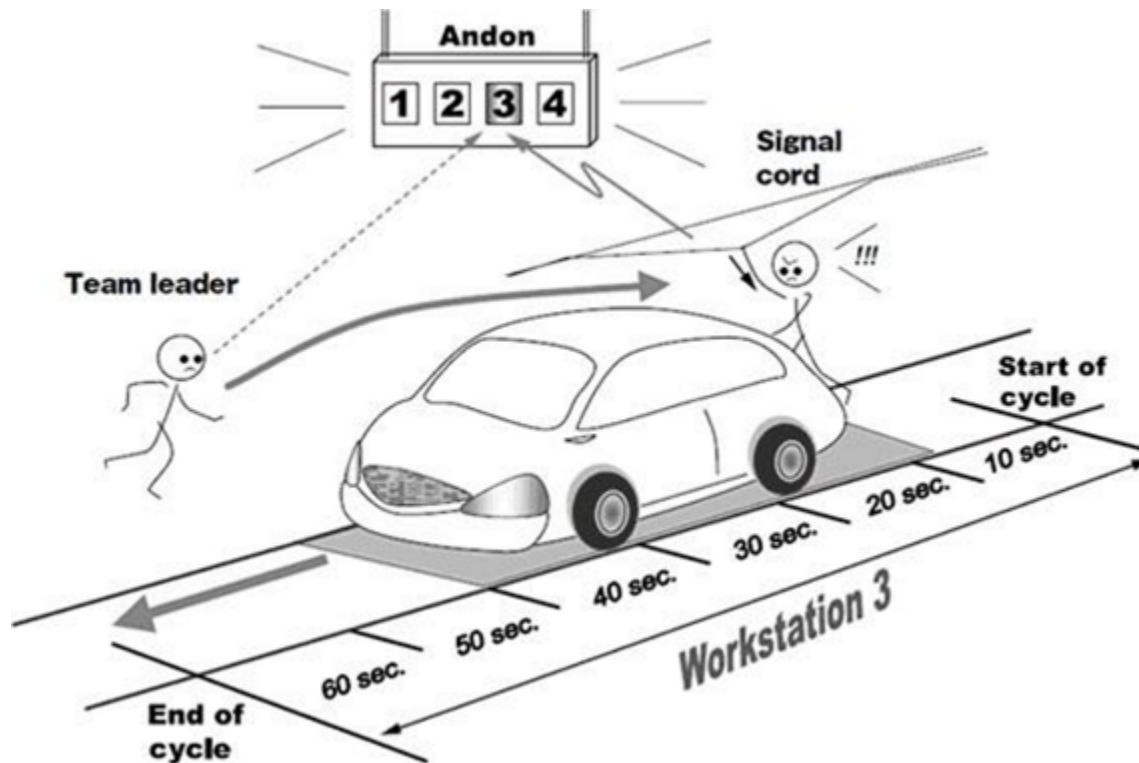
Key features of an Andon system typically include:



- **Visual Indicators:** The system uses visual signals, such as colored lights or displays, to convey the status of a process. Different colors may represent different types of issues or process stages.
- **Real-time Information:** The Andon system provides up-to-date information about the current status of the production process. This allows operators, supervisors, and managers to quickly assess whether the process is running smoothly or if there are any problems.
- **Problem Identification:** When an issue arises, whether it's a quality defect, equipment malfunction, or other problem, the Andon system is triggered to alert relevant personnel about the issue.
- **Alert Mechanisms:** In addition to visual signals, Andon systems can use auditory signals such as alarms, buzzers, or chimes to draw attention to problems. These signals are designed to prompt an immediate response.
- **Hierarchy of Escalation:** Andon systems often include a hierarchy of escalation. If the initial operator responsible for a process cannot resolve the issue, the problem can be escalated to higher-level supervisors or maintenance personnel.
- **Data Collection:** Many modern Andon systems are integrated with data collection and analysis tools. This enables the monitoring of historical data, identification of recurring issues, and analysis of root causes for continuous process improvement.

The overall goal of an Andon system is to promote efficiency, quality, and problem-solving within the production process by ensuring that issues are quickly addressed and that the process can be optimized based on real-time feedback. It aligns with principles of lean manufacturing and continuous improvement, aiming to reduce waste, improve product quality, and enhance overall productivity.

Andon example in the Toyota Production System



In a Toyota manufacturing plant you can find a call button and an Andon Electric board.

If an irregularity happens during production, the worker will press the call button. Then a yellow light will appear in the Andon board which will also play a sound to call the attention of the support team.

Once the support leader sees the Andon board, he/she heads to the location to address the issue. When the issue has been resolved, the leader pushes the call button to release it. During this time, the production line is still moving. However, if the issue is not resolved within a set distance after the leader's arrival, the assembly line will stop and the Andon light will turn from yellow to red.

Once the issue has been addressed, the leader will press the call button to release it. At which point the production line will start moving again.

When an issue is identified, the problem will be solved, even if it means stopping production. This ensures that the vehicle moves to the next step of production without any defect.