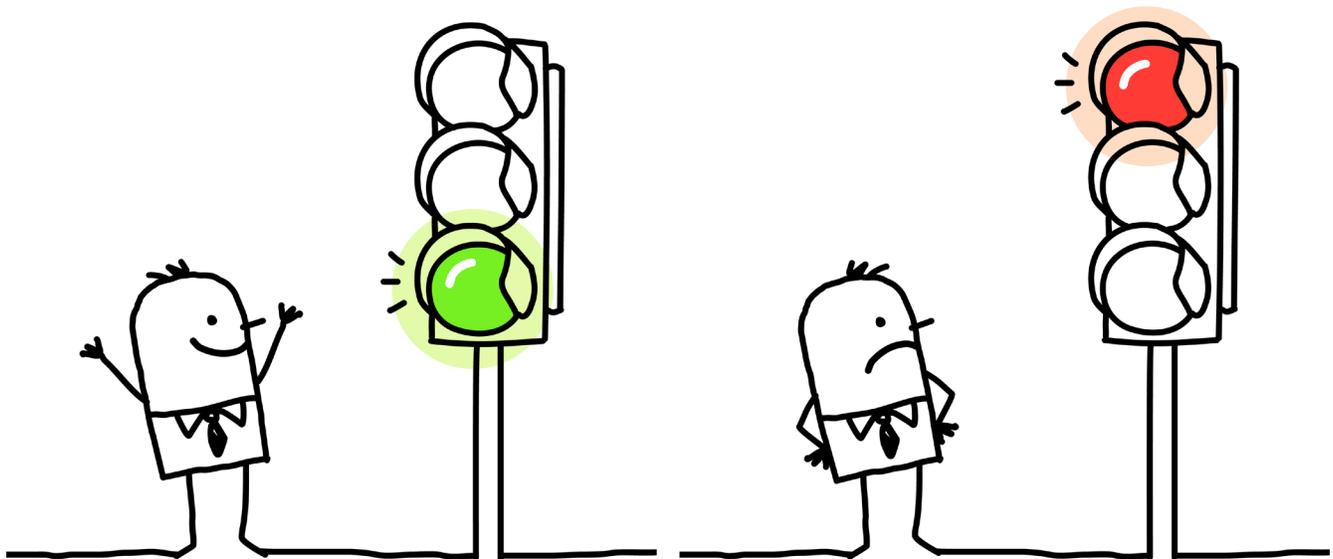


ANDON



DEFINITION

- A warning or call system built into a process that allows workers to alert others of a defect or problem
- A simple visual tool that indicates where assistance is needed in the workplace

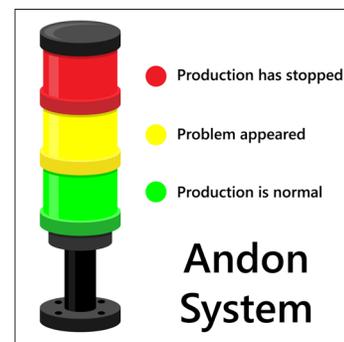
Andon originates from the Japanese word meaning, “paper lantern,” and in English, has become known to mean “sign or signal.” A key part of a Lean Production System, Andon is a component of the [Jidoka*](#) (human automation) process that is put in place to ensure work becomes a “self-controlled” process.

*Click on links provided for words featured in previous Words of the Month (WoM)

ANDON IN ACTION

The power of Andon is twofold: it promotes ownership of a process while driving efficiency. When workers see something out of place, they are empowered to take immediate action to stop the line/process so the problem can be resolved and production restored.

Andon gives workers more ownership over their daily work through increased decision-making and accountability, which in turn helps boost confidence, trust, satisfaction, motivation, performance, retention, and morale.



ANDON APPLICATION AND ELEMENTS

Preferably, an Andon cord/buzzer is installed in every work area/workstation, allowing supervisors to easily see where an issue or problem is taking place. Though Andon systems are designed to best fit each individual environment, most systems allow workers to stop the line/process when a defect or equipment abnormality is detected, to fulfill requests for materials, or even for workers to take a restroom break. Supervisors are tasked with stepping in when a line/process is flagged, paused, or down to help ensure issues are quickly addressed. Andons are most useful in areas with a history of high occurrence of defects, quality and safety issues, machine stoppages, etc.

Manual vs. Automatic/Electronic

In a manual system, it is the worker who initially detects the problem and alerts others of the issue via pulling an Andon cord or pressing a button. With an automatic system, on the other hand, sensors are built into the equipment that are triggered when there is deviation from the standard production process, thereby setting off an alert.

Andon Boards

Data on production performance, collected either manually or electronically, is displayed and communicated on an Andon board to visually alert the status of production (i.e., the different processes in the system, production speed, actual/target and defect quantities, material supply issues, etc.), and equipment on the assembly line, in a way that is immediately understood and recognized by all.

A color-coded light system is used to represent the status of work at different phases of the process. While determined by each organization, typically Green = optimal working conditions, Yellow = a (minor) issue has been detected (which is being addressed while the line is still running), and Red = a more significant, time-consuming problem/defect has been detected which requires the line/process be stopped in order to solve the problem.

KEY POINTS TO KEEP IN MIND

...and a few words of caution. Andon systems are not one-size-fits-all; they are customized based on each user's specific need. For example:

Electronic Andon may be the solution if observation and data collection reveal that many stoppages are due to material replenishment. Electronic Andon can be set up to directly notify those responsible for fulfilling replenishment requests (i.e., audio signals delivered through mobile phone networks). Such "targeted" Andon may be preferred in these types of cases vs. disrupting an entire line/work area.

Likewise, "targeted" electronic Andon may be the answer in situations where workers have become "desensitized" to the frequent lights and buzzers, tuning out the warning indicators because they are not required to take action. If you are not ready to transition to an electronic system, you can combat desensitization with further customization of color-coding and sound indicators in your manual system which can direct warning signals to the right individuals.

While Andon systems are simple to apply, set up can often be costly (especially with more advanced systems), so use caution in selecting which areas, problems to target for implementation, and type of Andon are most suitable.

Regardless of which type of Andon you employ, the key point is not to ignore what caused the problem in the first place. If the problem has not been corrected at the root cause once the line is back up and running, a **problem-solving*** effort should be undertaken to get to root cause and prevent the problem from reoccurring. Note: it should not be uncommon to have duct tape in use while permanent solutions are being established.

BENEFITS OF ANDON

The main benefit of Andon is improved visibility and communication which creates transparency and improved information flow in any process. Additional benefits include:

- Increased turnaround times, flexibility, customer responsiveness, and satisfaction
- Improved worker empowerment, engagement, satisfaction, and morale
- Increased quality and workplace safety
- Reduced defects and rework, unplanned downtime, and manufacturing costs
- Reduced waste and improved productivity, profitability, and efficiency

ANDON

ANDON FOR REFLECTION

Andon is simple and easy-to-use, both in and out of the workplace. Consider which examples resonate with you, and which spark ideas for further application:

- Lights and buzzers on a vehicle dashboard (similar to an Andon board), alert the driver of a change in the vehicle's performance status, prompting action to be taken (replace oil, put seatbelt on, check tire pressure, etc.)
- Red lights on call center screens indicate a queue of incoming calls
- Texts and emails notify recipients of alerts and updates
- Customer Service is alerted if a customer receives an incorrect or defective product so corrective action can immediately be taken

ANDON...NOT TO BE CONFUSED WITH:

Abandon

In this week's production meeting, the supervisor introduced the team to the Andon system, allowing workers to stop the production line when important issues need to be addressed. Nick couldn't believe his luck: awesome new job, and in addition to lunch and break times...an opportunity to stop the line if something important comes up? Mind blower. Feeling empowered, Nick gave the new Andon cord a test to call his girlfriend to apologize for ghosting her last night. It wasn't until Nick's boss reprimanded him that he realized Andon was not a green light to, in essence, "abandon his post;" it was reserved for important work-related issues. Oops. Move over Fido, Nick's spending time in the doghouse!

INSPIRING QUOTES:

"People want guidance, not rhetoric; they need to know what the plan of action is and how it will be implemented. They want to be given responsibility to help solve the problem and the authority to act on it."

Howard Schultz, Starbucks

"Empower employees to make decisions to support the customer. They shouldn't have to ask permission to do something that seems like common sense."

Shep Hyken, Author

