

# INDUSTRIAL AUTOMATION

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**'VR and AR enable "seeing" inside the weld'**

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Managing Director,  
Lincoln Electric Company (India) Pvt Ltd.



**'Enclosures house very critical electronics & power components'**

**Ajay Bhargava,**  
Managing Director,  
Rittal India Pvt Ltd.



**'Pilz offers complete automation solutions'**

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Managing Director,  
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# 'Rudrino OneBox is going to be our flagship product'



**Ajay Kamble**, Co-Founder and CEO, AMWick Technologies Pvt Ltd, speaks to **Industrial Automation** on the value proposition of the young start-up.

**Automation or an IIoT ecosystem has various layers and products and solutions are available at each of these layers.**

## Congratulations on launching this start-up. What does AMWick bring to the table?

Thank you for the wishes.

AMWick is focused on Industrial Internet of Things (IIoT) and Industrial Automation Solutions. Although the company is registered recently, we founders, as individuals, carry around two decades of experience, in Operational and Information Technology. We believe we are unique from the following perspective:

- Expertise: Designed and implemented Mission Critical solutions
- Breadth of experience: Solutions implemented using wide range of technology for varied use cases
- Agility: Proactive response to customers' needs
- Consulting: Consultative approach in solution

implementation, and • Success Stories: A happy and referenceable client list.

What separates us from others is – Innovation, Reliability and Cost optimised solutions that AMWick offers.

## There are vendors of automation products and technologies and there the users. Where does AMWick figure in this equation?

Automation or an IIoT ecosystem has various layers and products and solutions are available at each of these layers. But challenge remains in adaptability and implementation. Cisco presented a report at the Global IoT Conference in London in May 2017 that gives interesting statistics about IoT implementation:

- Nearly 3/4th of IoT projects are failing
- 60% of projects stall at PoC stage, and
- Just 26% of projects are considered as success.

The reasons given are:

- Prolonged implementation time
- Budget overruns
- Lack of internal expertise
- IoT integrations required, and
- Poor quality of data collected.

Our thoughts do echo with these findings. Our experience has helped us in designing solutions that overcomes these challenges and build a world class solution. Solutions for enterprise clients can be standard as well as very specific

and customised. For SMEs, most of the automation needs can be addressed via standard solution.

So to summarise, we are offering end-to-end solutions with different strategies for enterprise and SME customers.

## What are the industries the company is working with? Who is the typical AMWick customer?

Our proposition is agnostic to Industry Vertical and Industry Size. Our Rudrino OneBox Solution can address over 90% of industrial automation needs. Further, if you look at use cases, most of them have applicability in all industries. So our customers can be anyone who is looking to improve processes and bring in efficiencies in existing operations. However, if we talk about the target focus customer, our strategy is well defined.

The SME segment will be a target for Rudrino OneBox solution.

Among Enterprises, our focus is Manufacturing and Automotive industries. There is great potential and this segment interests us most. We are currently in discussion with some big clients in this segment. However, we are open to look at requirement of other industries as well.

## What is the Rudrino OneBox and how does it work?

Rudrino OneBox is going to be our flagship product that is envisaged to

address a whole range of industrial automation needs. Think of a Personal Computer that is being used by various individuals as per their specific needs. Some use it for academic purposes while others use for entertainment, design, official work, etc. Depending on what use case a PC is being used for, the configuration of the PC changes. Most PCs have a PCI slot which helps you to change the configuration. So there is a standard configuration and then there are provisions to accommodate configuration changes.

We are applying a similar concept to our Rudrino OneBox architecture. Most common use cases of Automation/IloT will form the standard configuration, but we will address other use cases as well, with the plug & play options. Additionally, we are building applications repository that will be use case specific ex: Asset management, Inventory tracking, Andon, Statistical process control, etc., which will be available off the shelf. All these applications will be available with rich functionality and analytics. In case, any customer needs customisation, it can be addressed accordingly.

Through our Rudrino OneBox, we are trying to touch all the layers involved in any IloT solution.

The AMWick website talks about bringing the benefits of automation to the smallest users. How do you make this happen?

The SME manufacturing market in India is huge. The industry is going through positive changes and everyone needs to adapt to these changes to be competitive and efficient. SMEs are no exception. In most cases, the Enterprise Clients are going to enforce the use of technology on their vendors/suppliers which are typically SMEs. So they will have to embrace it anyways.



**IoT/IloT is going through rapid evolution everyday and as every new technology has its challenges and criticism.**

#### **Let's look at some of the purchasing trends of SMEs:**

1. Cost optimised solution: The segment is very cost sensitive and looks for solution that is economical and at the same time provides desired technological benefits.
2. Single Vendor Solution: SME's are shy of interacting with multiple vendors for an end to end solution. Involvement of Multiple Vendors makes a solution costly and implementation cycle longer.
3. Quick Deployment and Faster RoI: SMEs looks at solutions that are simple, easy to deploy and provides quick return on investments.

AMWick's Rudrino OneBox Solution is precisely going to address these needs. SMEs do not need to look further for their IloT journey; Rudrino OneBox addresses over 90 per cent of use cases. So essentially we provide right technology at right price.

#### **How competitive is this service for SMEs, many of whom are looking for piece meal solutions rather than make a holistic approach? Do you see opportunities here?**

The opportunity is huge in SME segment. As per 2016-17 Government report on MSMEs, there are > 4.5 crore registered MSME units of which 44% are Manufacturing units. So we are talking of over 2 crore of potential Manufacturing units in this segment. And for rest of the 56%, still there are use cases where Rudrino OneBox can add significant value. So opportunity is huge.

I would not agree to the statement that SMEs look at piece meal solution. They look at single vendor, end-to-end solution, at a price point that makes it a viable proposition. When you state that a SME requires interaction with 3-4 different products and vendors to implement a solution; it is going to be a show stopper. Multiple vendors add additional cost, complexity of integration, interoperability with prolonged implementation time. This segment is impatient and needs quick deployment and RoI. That is exactly what we are trying to do with Rudrino OneBox.

#### **Implementation of IloT raises a host of security concerns. How are these addressed?**

IoT/IloT is going through rapid evolution everyday and as every new technology has its challenges and criticism; it is also getting its fair share. As the number of interconnected devices increases so does the security threat. Further, the access mechanism of data (web, mobile app, etc), varies, even this adds to the security threat.

Security has to be addressed holistically right from physical, device, data, communication and data access level. The objective of pointing security threat is

not to discourage use of technology but to bring these issues upfront and have strategies to address them during design and Implementation. However, addressing IoT security concerns is going to be very different from addressing traditional IT security. IoT ecosystem has various components and connections. Keeping a track of these connections and interconnects and securing them is going to be challenge but important.

Following things needs to be kept in mind, while addressing Security concern

- Right security strategy
- Holistic rather than piece meal approach
- Right choice of technology, standards and products

- Education and training, and
- Periodic audits to capture and remediate security threats

**It is still early days for implementing the concepts of Industry 4.0 in India. How far is the inflection point in your estimation?**

The difference between IIoT and Industry 4.0 is being interpreted differently by different stakeholders. However both talk about connected systems, i.e., Machine to Network, Machine to Machine. For us, the difference lies in context of terminology in which it is used. While IIoT is more a Business term, Industry 4.0 is more of a government/government body initiative in European countries, especially Germany.

**However, addressing IoT security concerns is going to be very different from addressing traditional IT security. IoT ecosystem has various components and connections. Keeping a track of these connections and interconnects and securing them is going to be challenge but important.**

India is ranked in top 20 for the adoption of IIoT. We are seeing enterprises going in for IIoT adoption or Industry 4.0, if that's what you want to call and slowly this is percolating to medium and smaller industries as well. We believe that we are already at an inflection point and the adoption is now going to increase exponentially. 

## Real-Time Solutions for Efficient Asset Management

Pepperl+Fuchs brand recently demonstrated how companies can implement and put IIoT-solutions to profitable use: including innovative solutions for real-time localization and an efficient, interconnected asset management.



A key focus is placed on the Bluetooth Low Energy (BLE) beacons Loc-Ex 01 for ATEX/IECEx Zone 1 and Loc 01 for non-hazardous areas. The BLE beacons developed especially for businesses with extensive factory premises or hazardous areas connect people, sectors, assets and systems. They combine digital and physical data into a single business intelligence unit and help to shape the entire value chain to reduce costs while simultaneously increasing productivity and efficiency.

By attaching small BLE beacons, assets become intelligent, localizable objects, which can provide arbitrary information, such as temperature or fill level, and even respond to events such as keystroke, brightness, shock or positional change. Apart from the spatial information, additional data about local process parameters is transferred in real time. In addition,

neighborhood relations and alarms can be defined, for example, if dangerous goods are to collide or to be stored side by side.

The Bluetooth 4.1 standard ensures that the beacons are compatible with both currently popular as well as hazardous area explosion-proof tablets and smartphones like the Tab-Ex 01 and

Smart-Ex 01. Together with suitable applications they form a comprehensive system for any digitization strategy. The BLE beacons are part of a wirelessly interlinked, explosion-proof solution portfolio that includes smartphones, tablets, peripherals as well as apps and software.

A willingness to take entrepreneurial risks, a pioneering spirit, and a firm belief in their own inventive powers – these were the assets that Walter Pepperl and Ludwig Fuchs started out with when they opened their Mannheim radio repair shop in 1945. Their invention of the proximity switch a few years later proved their strength. It was also the starting point in a successful history defined by close customer relationships as well as innovative automation technologies and procedures.