

**Malaysian Rubber
Products
Manufacturers'
Association (MRPMA)
- President (2020-2023)**

**Managing Director of
Cooltec Industries Sdn
Bhd & Associated First
Rubber (M) Sdn Bhd**

Yeaw Kok Kwey



Our Products:

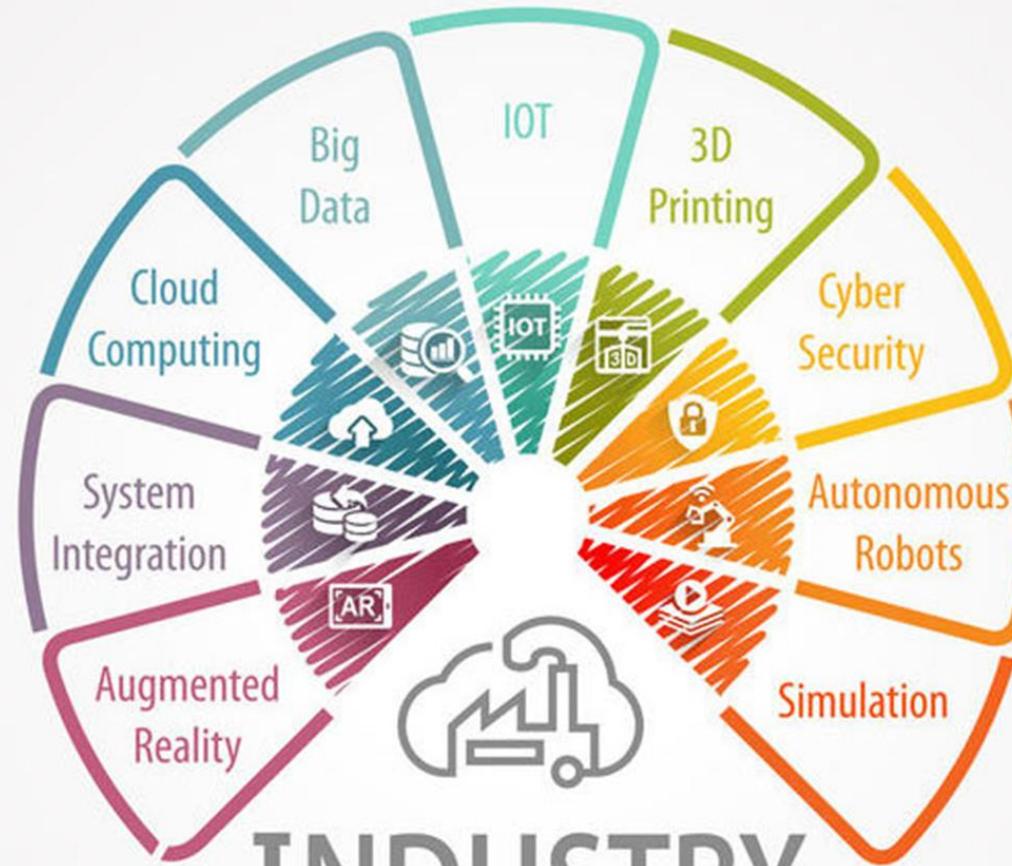
- Manufacture all kinds of rubber moulded parts**
- Manufacture O-Ring, Diaphragm, Seals, Grommets, Gasket, Custom Products**
- Supply to OEM and REM in domestic & international market**

**Quality Products with Prompt
and Timely Deliveries**



WHAT IS AUTOMATION?

Automation or automatic control is the use of various control systems to operate equipment



INDUSTRY 4.0

“

PERCEPTION OF THE RUBBER INDUSTRY

”

**3 D - Dangerous, Dirty
and Difficult**



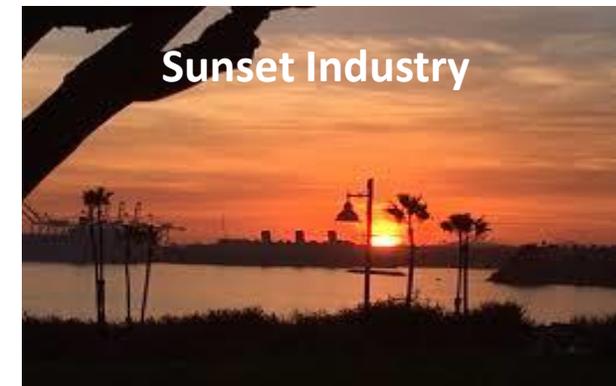
Dangerous



Dirty



Difficult



Sunset Industry



Labour Intensive

IS AUTOMATION GOOD FOR THE COMPANY?

Automation will reduce errors and increase productivity
(boost output and efficiency)



Real time monitoring
(production data, reject rate)

Organizations can perform processes with little to no human assistance (Reduce dependency on labour)

BEFORE AUTOMATION

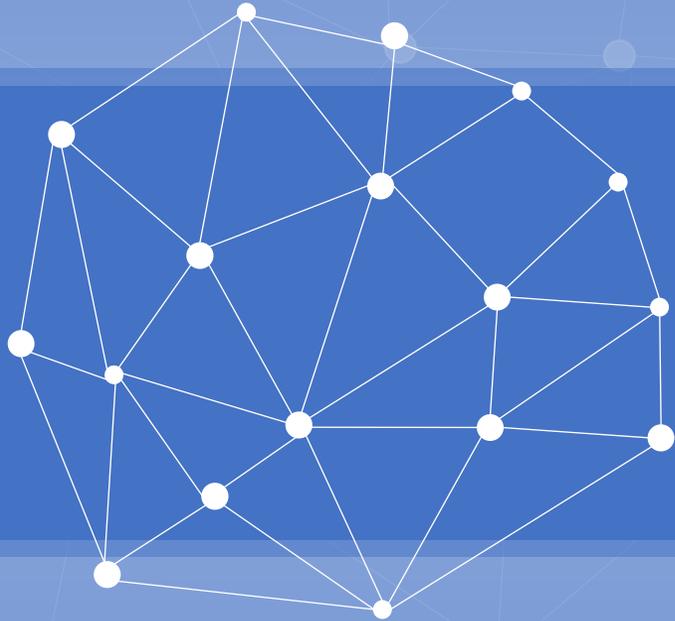
Manual Trimming



- Higher operation cost
- Difficult to fulfil customer order and lead time
- Not ready to accept bigger quantity order
- Keeping more W.I.P Goods
- Over planning and carry more stocks
- Higher rejection and quality unstable

Manual Visual Inspection





How to turn up Sunset
Industry to always the
last one become
Sunset

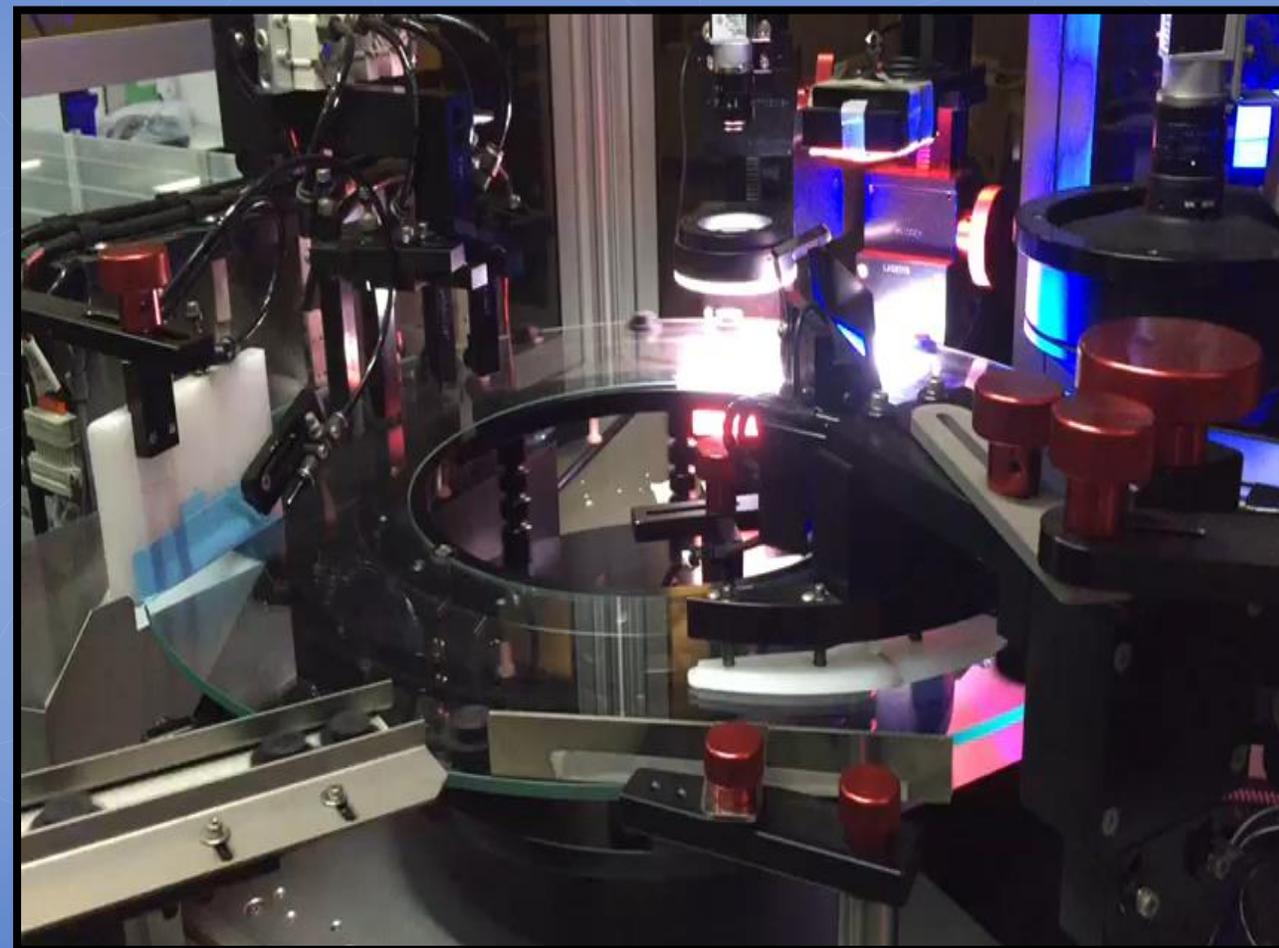
转机

Transforming a
Sunset Industry

Manual VS Semi-Auto Trimming Process



Manual VS Auto Visual Process



BENEFITS OF AUTOMATION IN SORTING AND INSPECTION FOR RUBBER PRODUCTS

- Increase Productivity
- Reduce Lead Time
- Provide Data Analysis and Interpretation
- Auto Packing Quantity
- Save Manpower
- Reduce Human Error
- Customer Delight

Description		Before Automation (Manual Inspection)	Automated Sorting and Inspection Process	Variance (%)
01	Number of workers/operators involved in operation (Per Shift)	 1	 1	
02	Number of man-hours to produce 1 item or 1 batch (minutes)	 57 unit/min	 400 unit/min	 611%
03	Production volume (capacity) per day	 30,780 unit/day	 216,000 unit/day	 611%
04	Defect rate (%)	 0.11%	 3.5%	 31%
05	Production volume (capacity) per day (24 hours)	61,560units	 576,000 units	 935%

With automation, one worker can now produce 576K unit per day, with labour which might take 18 workers to produce the same quantity manually

ADVANTAGES OF AUTOMATION SORTING AND INSPECTION

Cut down 25%
operations cost

Reduce manual labour
up to 20%

Run 24 hours a day
with minimum
manpower

W.I.P stock control less
than 1.5 days

Reduce rejects rate to
less than 3%

Ready to accept
more orders

Increase revenue with
lower operations cost

Automated data
collection &
visualisation for
accurate production
data

Competitive pricing for
local and global
markets

Better quality products
= customer satisfaction

WHERE DO WE BEGIN?

- Commitment of top management
- Allocation of budget by top management
- Search of Grant or Incentive from MRC under FAGT programme
- Setup kaizen team
- Appropriate skills & project management training for kaizen team members
- Plan kaizen journey with external support if required

OUR FUTURE AUTOMATION FOR MOULDING PROCESS



THANK YOU

“QUALITY RUBBER PRODUCTS POWERED BY INNOVATION”