

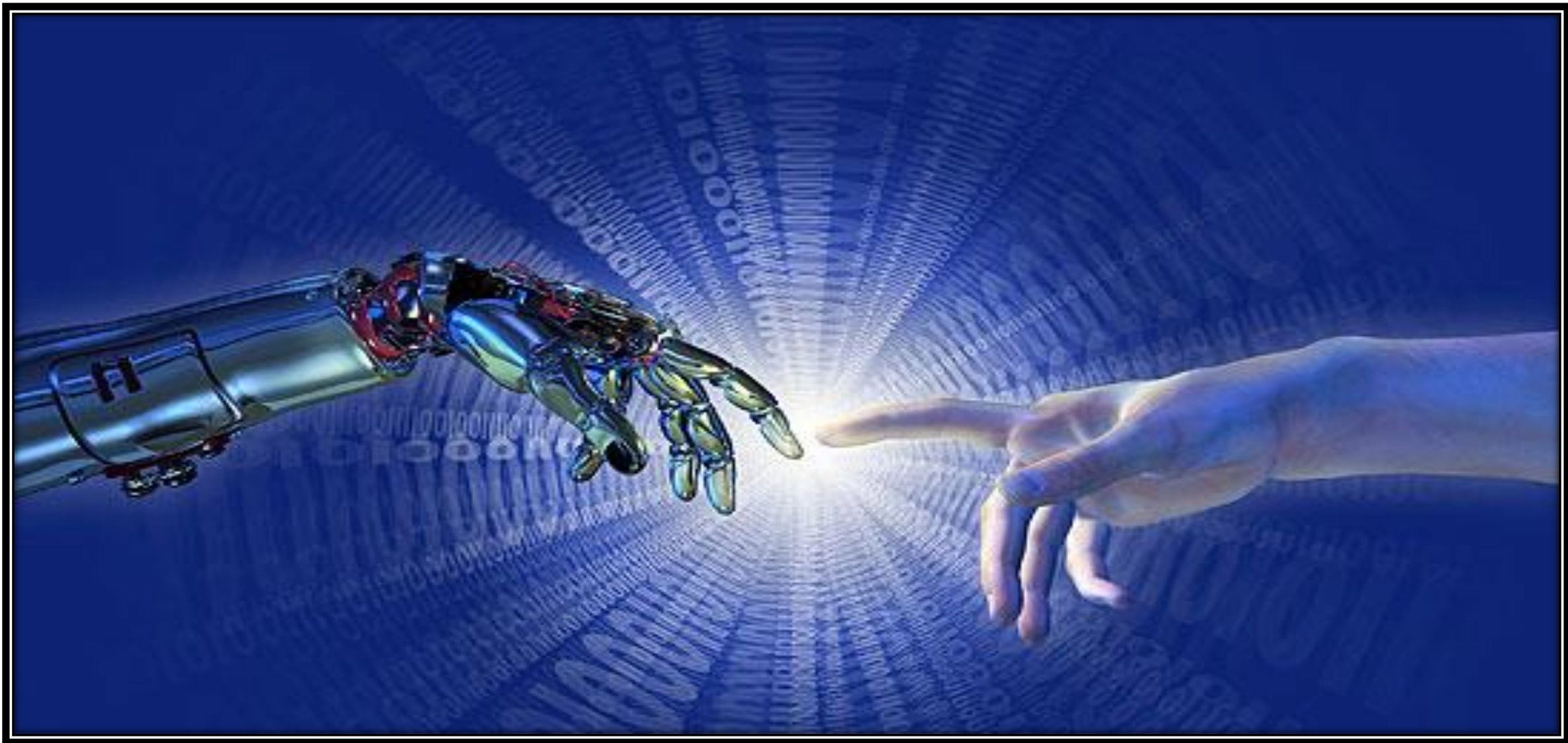


# AI & AUTOMATION

**2025 SPESA ADVANCEMENTS  
IN MANUFACTURING TECHNOLOGIES  
CONFERENCE**

**APRIL 3, 2025  
AUSTIN, TEXAS**

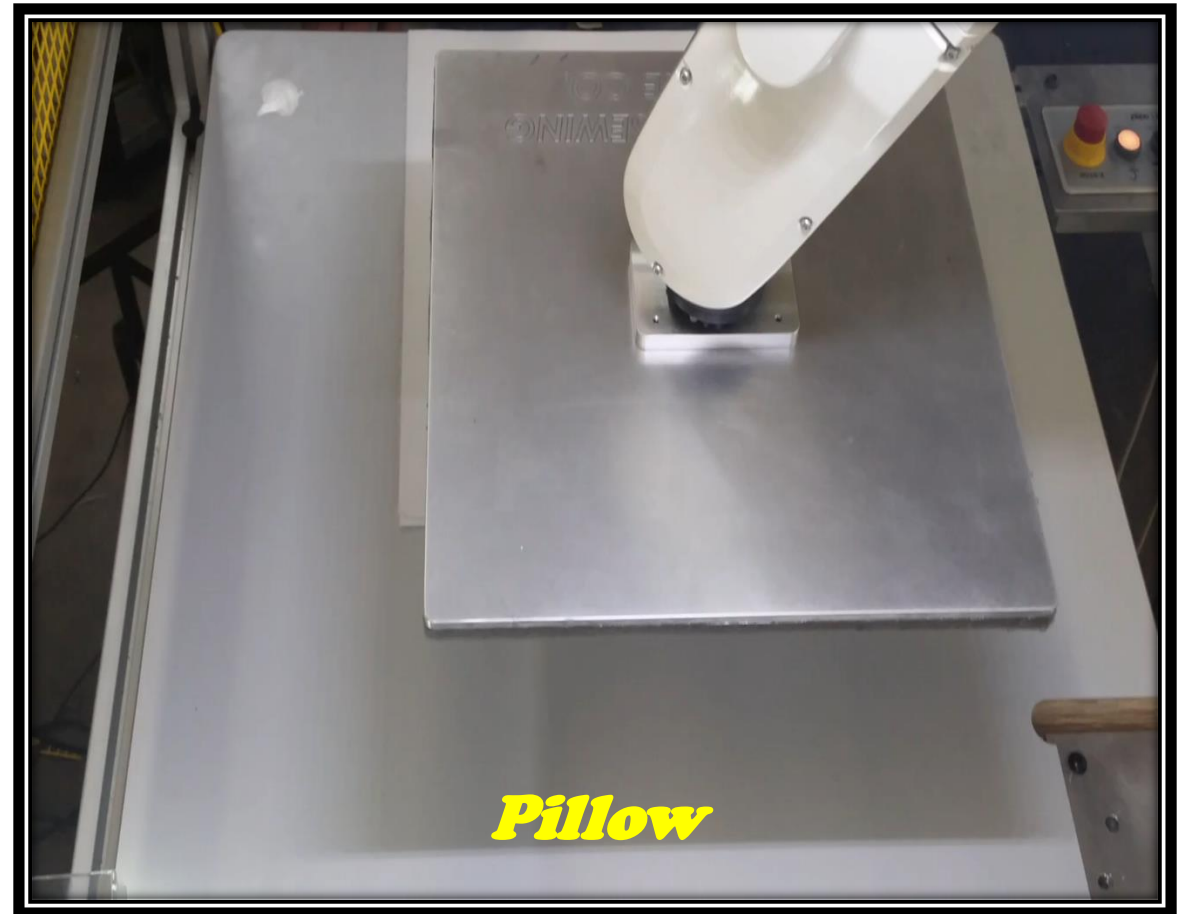
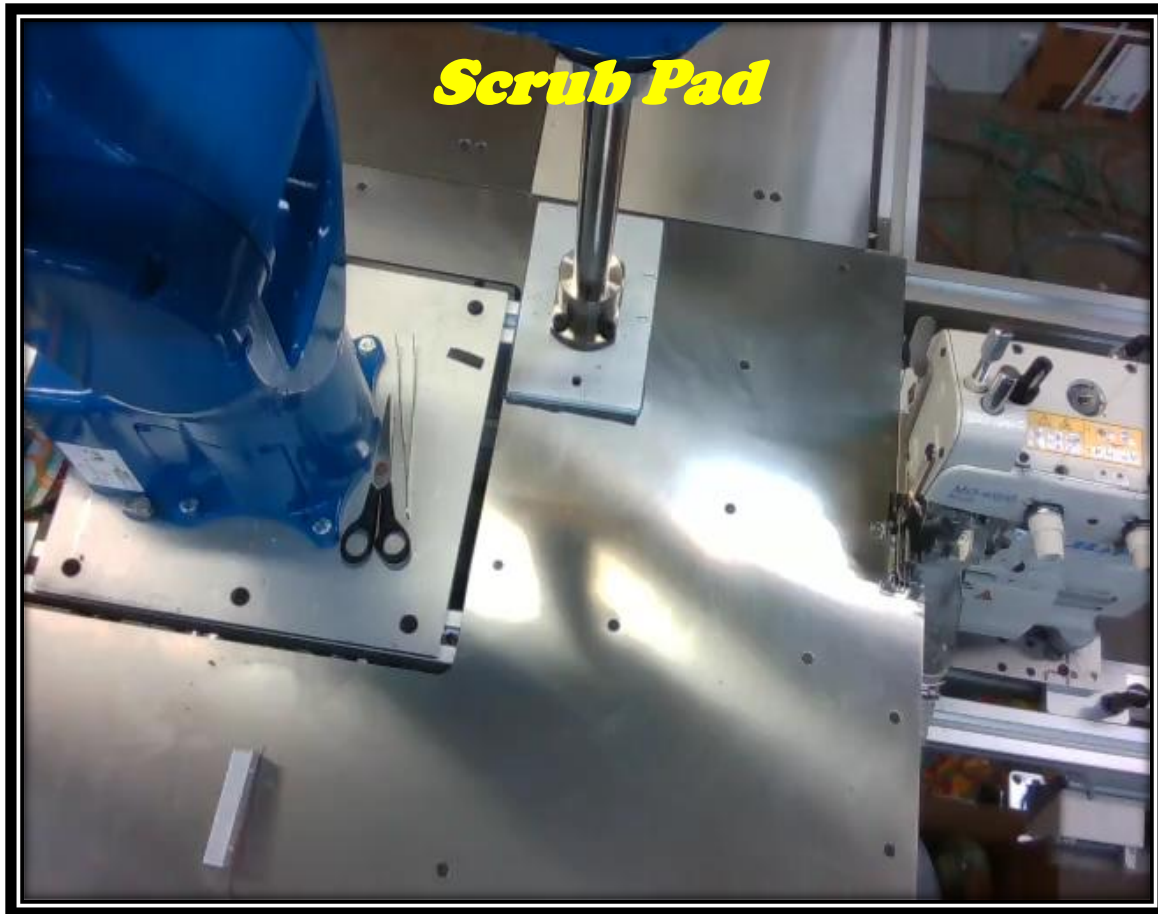
# THE AGE OF DISRUPTION



# **ROBOT** for **T-SHIRT** **Shoulders and Side Seams**



# **ROBOTS** Integrated into **SEWING**



# Automation to Manufacture Beanies



*Beanie, Feed  
Cut & Turn*



High Efficiency

**Beanie Robotic  
Auto Sew**



**Beanie Robotic  
Auto Sew**

# **COLLABORATIVE AUTOMATION**



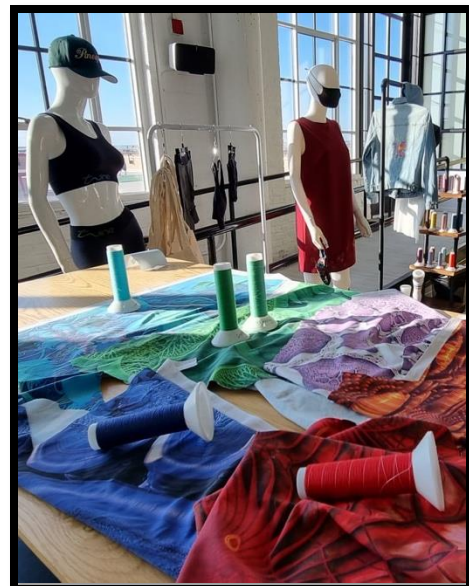
**OMRON MOBILE ROBOT**

# ROBOTIC LOADING T-SHIRT

## Bottom Hem



Say Hello to  
Digital Thread Dyeing



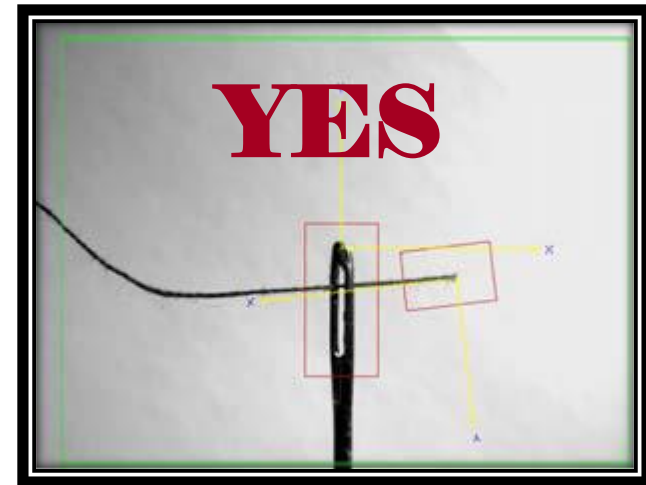
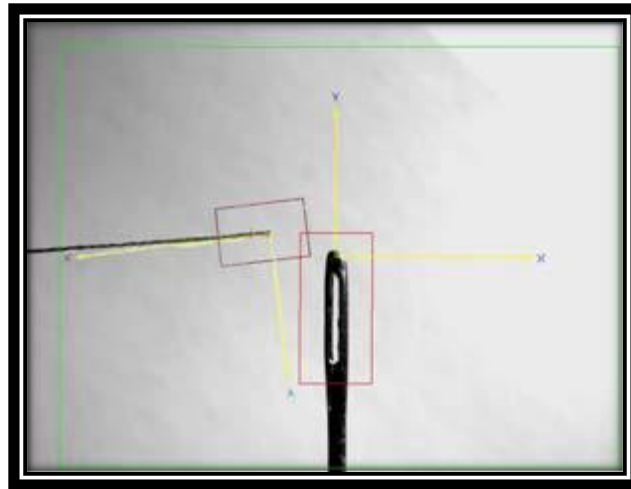
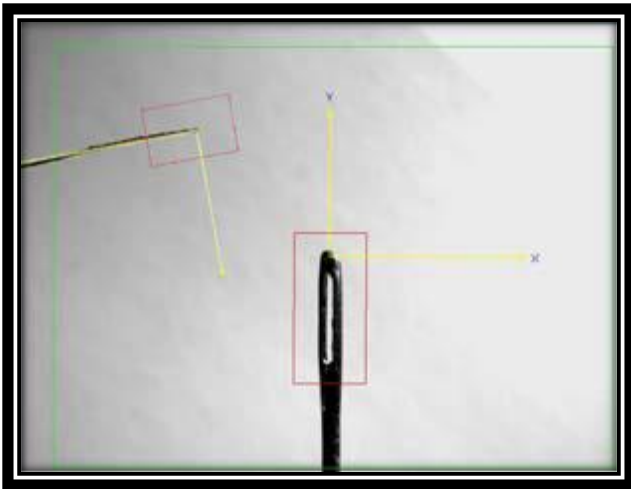
  
The fiber of digital textile





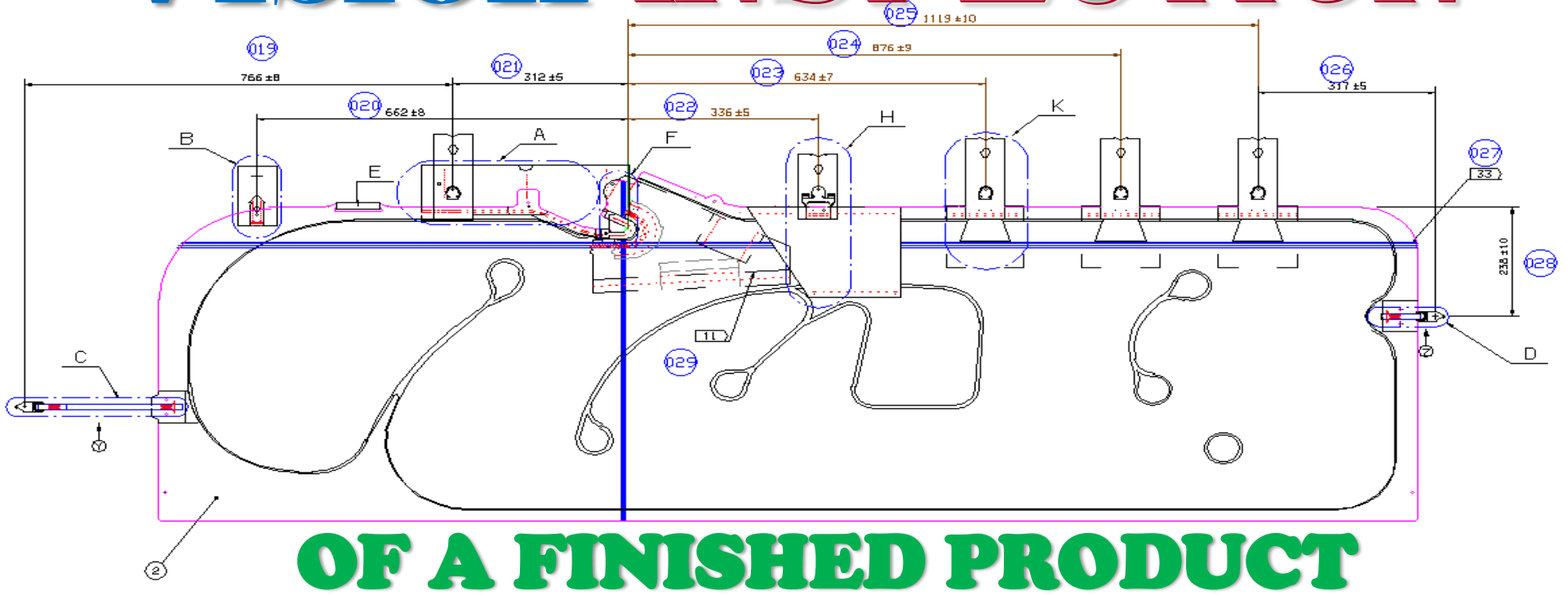
# VISION SYSTEMS INTEGRATION INTO SEWING

## Can Vision be Used to Thread a Needle?

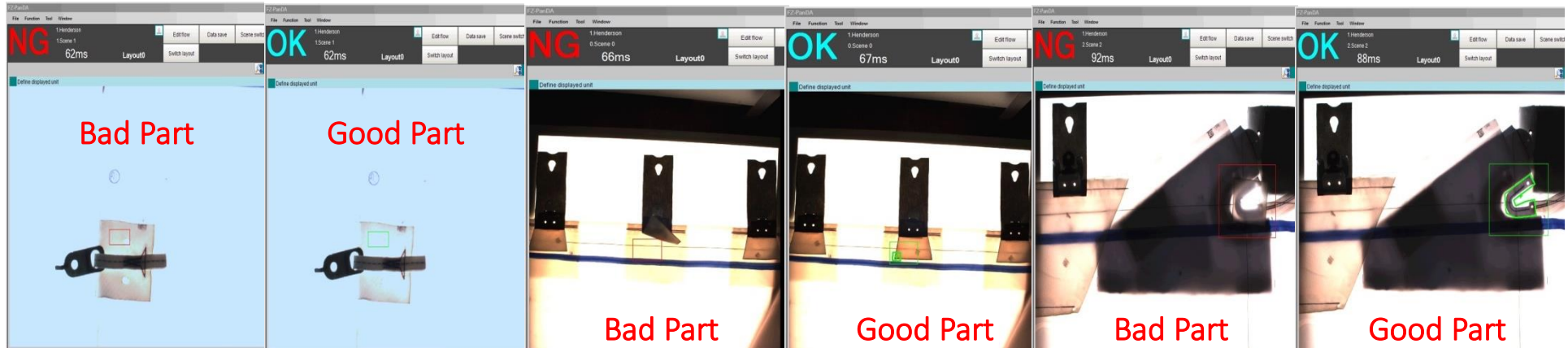


*Visual Servoing – System Captures Multiple Images and determines the relative distance between the part and the target. A series of incremental motion commands are executed until vision confirms the task is accomplished*

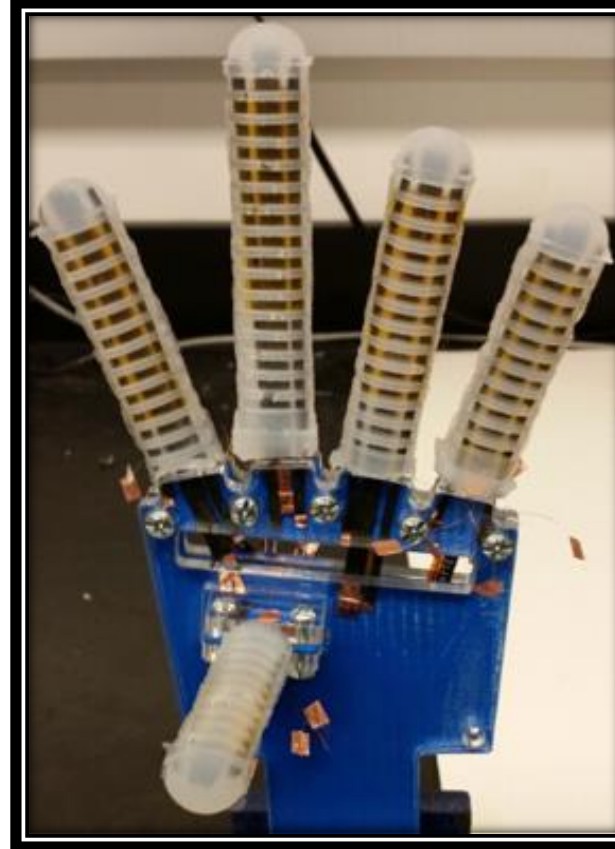
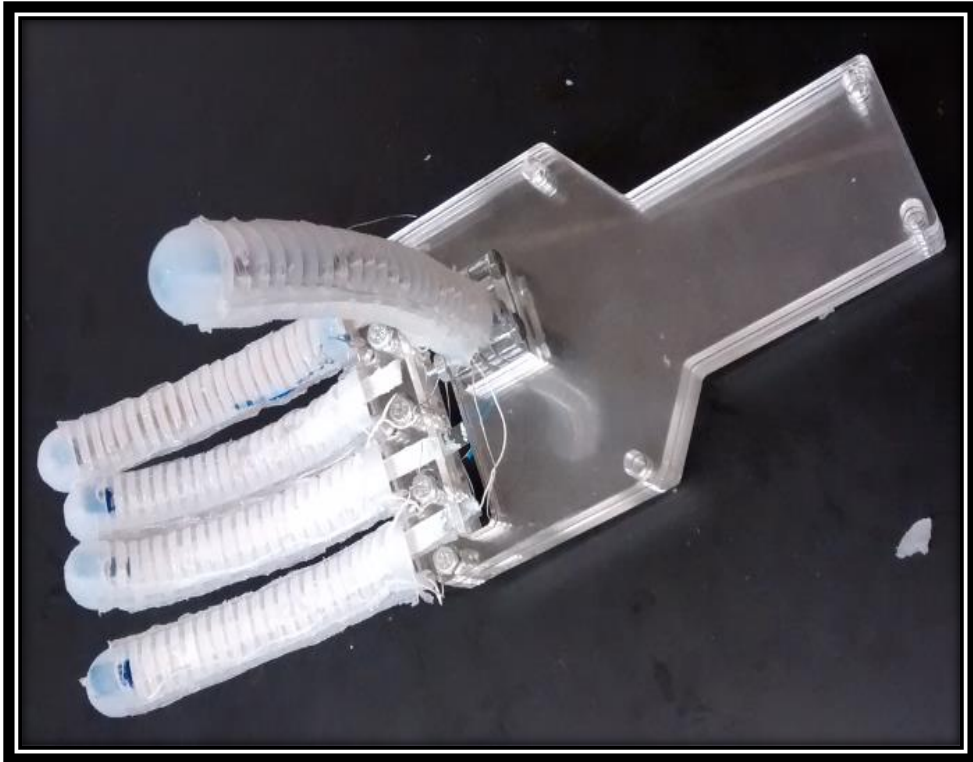
# Vision INSPECTION



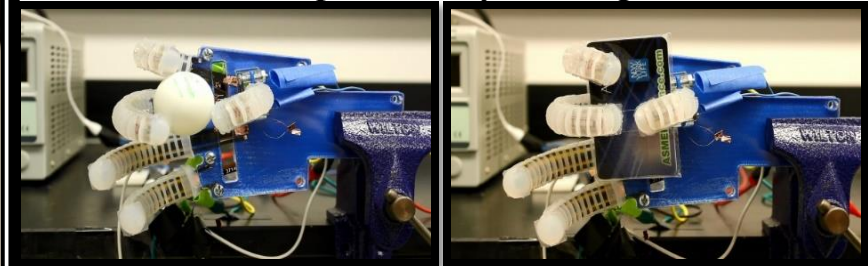
## OF A FINISHED PRODUCT



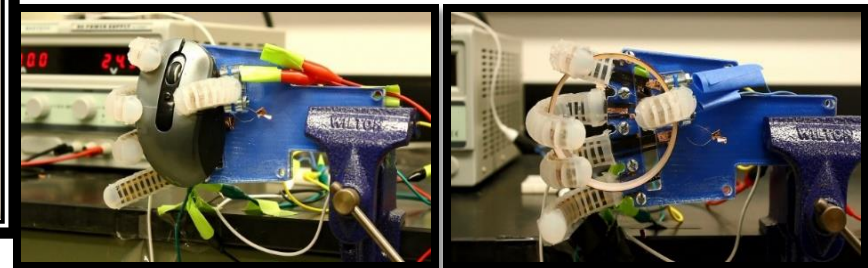
# Haptic Camera Technology



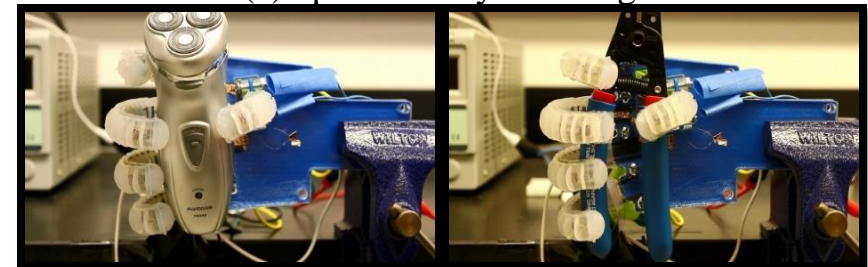
(a) operations by two fingers



(b) operations by three fingers



(c) operations by four fingers



(d) operations by five fingers

***ALL Things **Internet-Connected**...Devices and Machines Working Together to Optimize **Production and Efficiency*****



# THANK YOU!

## FOR YOUR ATTENTION

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Sewing Machine Co. SERVICE OUR  
No. 1 PRODUCT