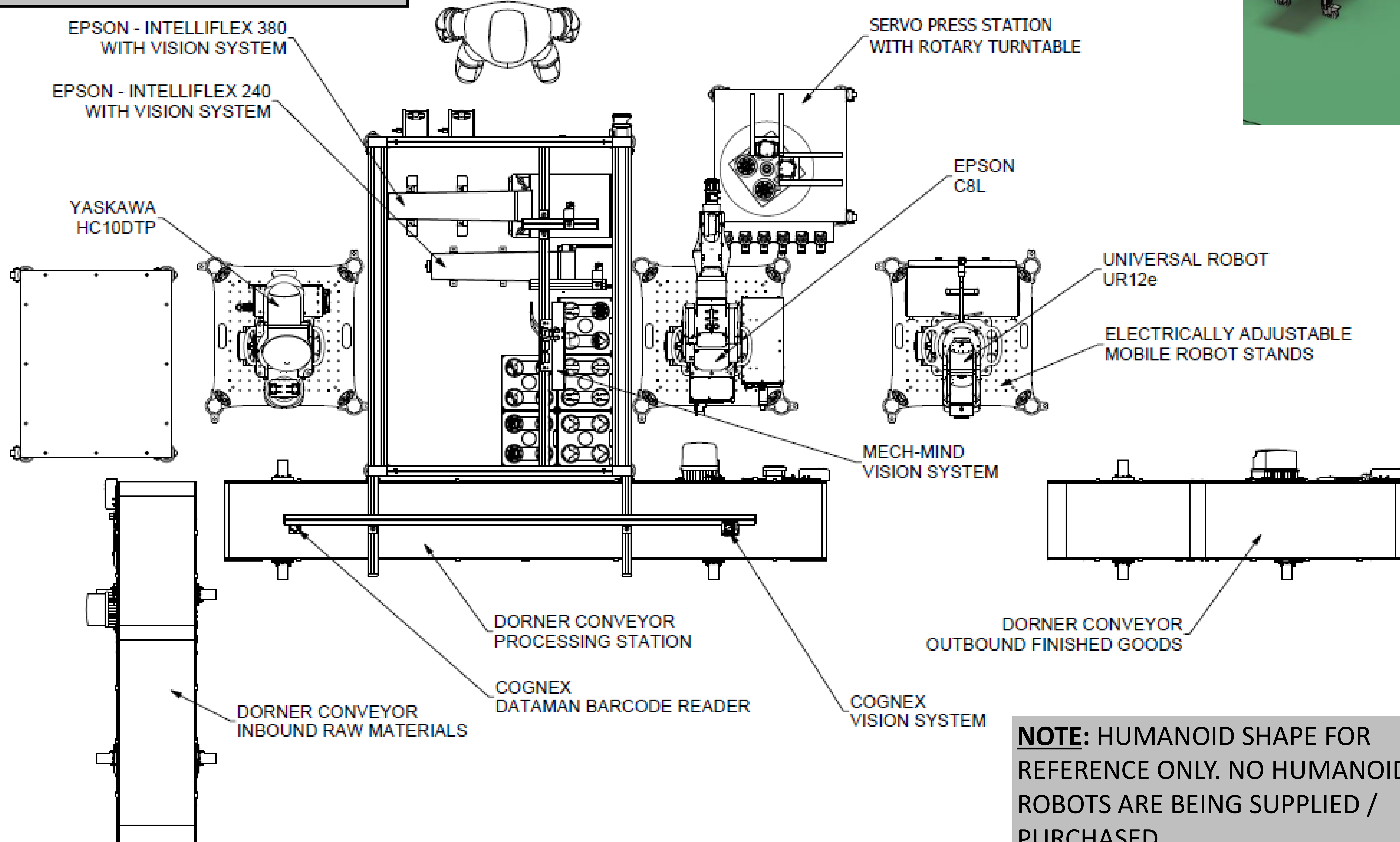
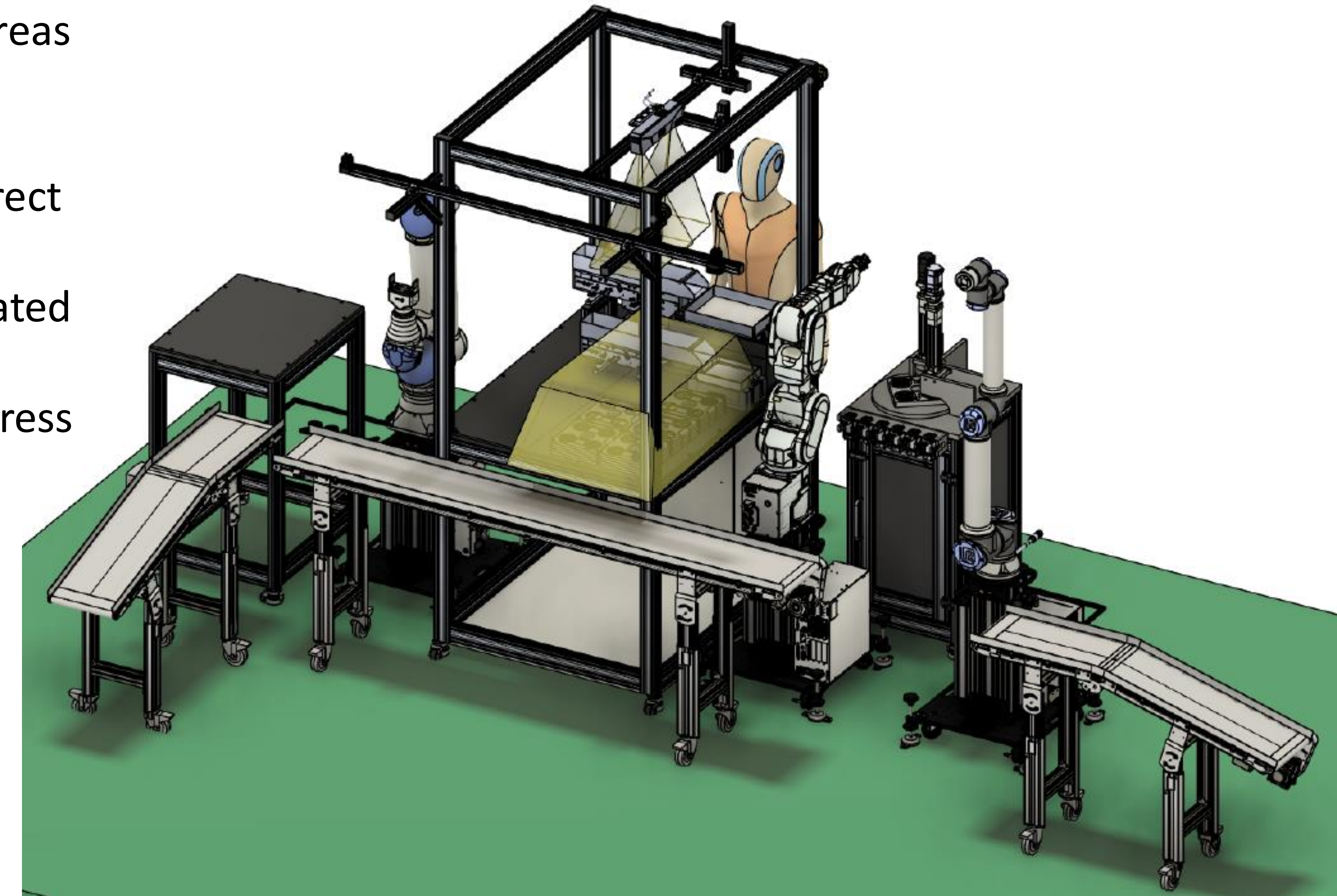


**COMING SOON!!**

**Objective:**

Create a flexible smart work cell capable of fully-autonomous, collaborative, or fully manual operations to be used across several IE undergraduate and graduate courses.

- 1)Machined raw pucks and various components from different areas are delivered via AGVs
- 2)Buffer inventory stored until needed
- 3)Control system determines requested product and verifies correct puck design via vision system and starts assembly operations
- 4)Cobot w/vision system picks corresponding required inlays located in shaker tables & bins
- 5)Cobot arranges inlay into puck and assembles via automated press
- 6)Finished pucks are palletized and transferred to VLM via AMR
- 7)Empty dunnage is returned to proper area via AMR



**NOTE:** HUMANOID SHAPE FOR REFERENCE ONLY. NO HUMANOID ROBOTS ARE BEING SUPPLIED / PURCHASED.

**Relevant Undergraduate Coursework:**

- Integrated Production Systems (IE 383 & 484)
- Computing in Industrial Engineering (IE 332)
- Ergonomics and Human Factors (IE 386 & 486)
- Manufacturing Processes (IE 370 & 470)
- Operations Research (IE 335 & 336)
- Industrial Control Systems (IE 474)
- Manufacturing Processes (IE 370 & 470)
- And the list goes on...

**Relevant Technologies:**

- Collaborative & Industrial Robotics
- Specialized End Effectors
- 2D, 3D, & Machine Vision Systems
- Vibratory Flexfeeders
- Unsorted Robotic Bin Picking
- Autonomous Mobile Robots
- Environmental Sensors
- Adjustable Height & Modularity
- Data collection, storage, and dashboarding
- Virtual & Augmented Reality