

We need to rethink production technology for meat packers — the old cutting table is being revived.

[HTTPS://DOI.ORG/10.1093/af/vfab077](https://doi.org/10.1093/af/vfab077)



Meat processing is a complex operation with many steps. Tasks such as cutting and deboning are typically performed in sequence along a production line, but this design is vulnerable to an increasing shortage of interested workers and mechanical failure since all carcasses move through a single system.

We are developing a new design that reimagines the traditional butcher's cutting table into an **automated system** where meat is butchered and packaged in parallel.

Traditional Butcher

Performs all tasks at a single station in sequence

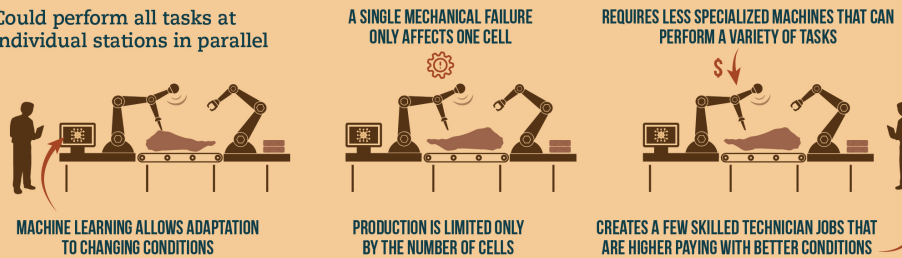
Classic Line Production

Performs tasks at many stations in sequence



Robotic Production Cells

Could perform all tasks at individual stations in parallel



Our new design is currently being developed at a Danish slaughterhouse to investigate feasibility. Current challenges include developing a **fast shift of tools**, a **small robotic footprint**, and protocols for **cleaning**.

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Infographic

Rethinking production technology for meat packers

Traditional meat production lines are limited in capacity and efficiency, and stops in the line can cause significant delays and interruptions to production. Robotic production cells using artificial intelligence can not only provide redundancy and accommodate biological variation in carcasses, but can learn over time, further increasing efficiency. However, challenges to implementing robotic production cells remain, and include the need for fast changing of tools, cleaning in place, and a logistics system that enables efficient movement of carcasses.

References

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