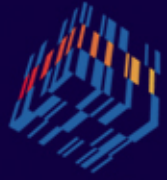


DeviceWorks<sup>irl</sup>

# Automated Ovine Pelt Removal Tasks

<http://www.deviceworks.co.nz>



DeviceWorks<sup>irl</sup>

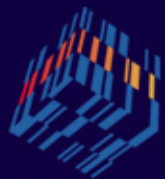
# Making it happen



## Focus is on commercial outcomes

DeviceWorks is a multidiscipline team of engineers:

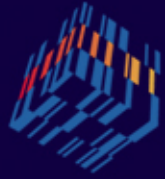
- ▶ Specialist skills across a broad range of engineering disciplines
- ▶ Engineers not scientists
- ▶ Access to 300 scientists
- ▶ Reliant on commercial contracts and delivering results
- ▶ Experts in automating meat processing



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# Technology status





# Intelligent Y-Cutter



Started with many years of previous research, prototype tool and trial results. DeviceWorks has provided the engineering to take the prototype and turn it into a commercial product.

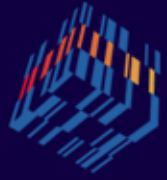
## **Currently 2 installations:**

### **Colac CRF**

- ▶ Commercial operation
- ▶ Chain speed 9 carcasses per minute
- ▶ Last significant service 28<sup>th</sup> February 2007
- ▶ Animals processed since last service 900,000
- ▶ Total animals processed since installation 2 million

### **Alliance Lorneville**

- ▶ Demonstration
- ▶ Currently awaiting season start to test additional development to meet customer requests
- ▶ Can arrange site visits

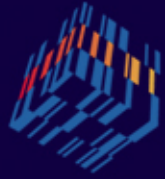


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# Automated Gas De-Pelting





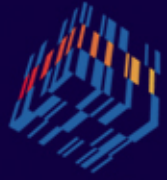


# Automated Gas De-Pelting



## Current status

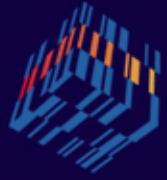
- **Prototype installed at AMP**
- **90% success rate**
- **On-going improvement program**
- **Currently rear leg operation**
- **Next stage fore legs**
- **Funding in place to take it to commercialisation in the 3<sup>rd</sup> quarter 2008**



DeviceWorks<sup>irl</sup>

# Sheep Rip Down





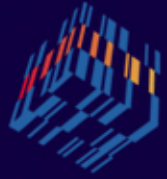
# Sheep Rip Down



## Status

- ▶ **Process has been automated and adapted to Kuka robot**
- ▶ **Success rates limited due to pelt damage caused by flaying**
- ▶ **Waiting for Gas De-Pelting to catch up**
- ▶ **When coupled with Gas De-Pelting lifts brisket connection of pelt to carcass**





DeviceWorks<sup>irl</sup>

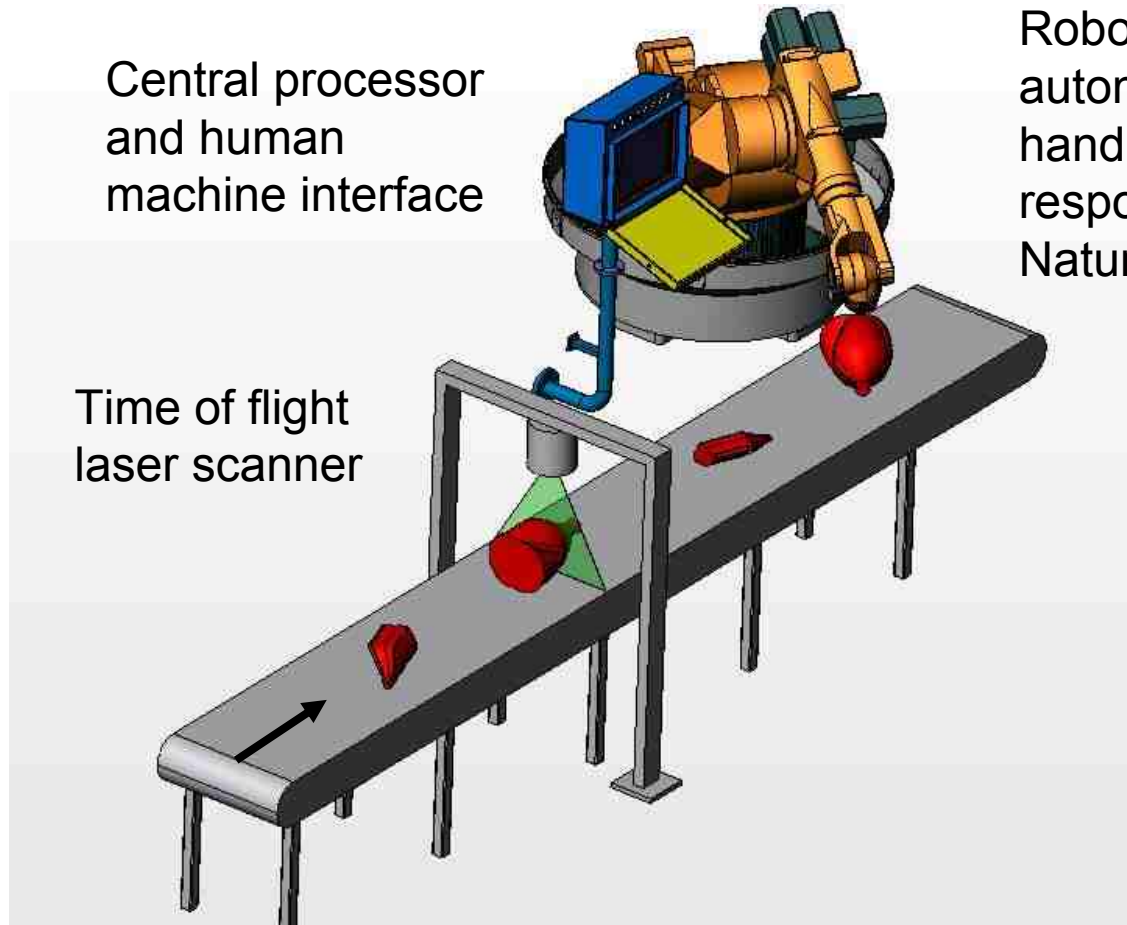
# Natural Product Sorter

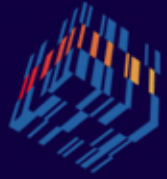


Central processor  
and human  
machine interface

Robot or other  
automated system  
handling the product in  
response to signal from  
Natural Product Sorter

Time of flight  
laser scanner



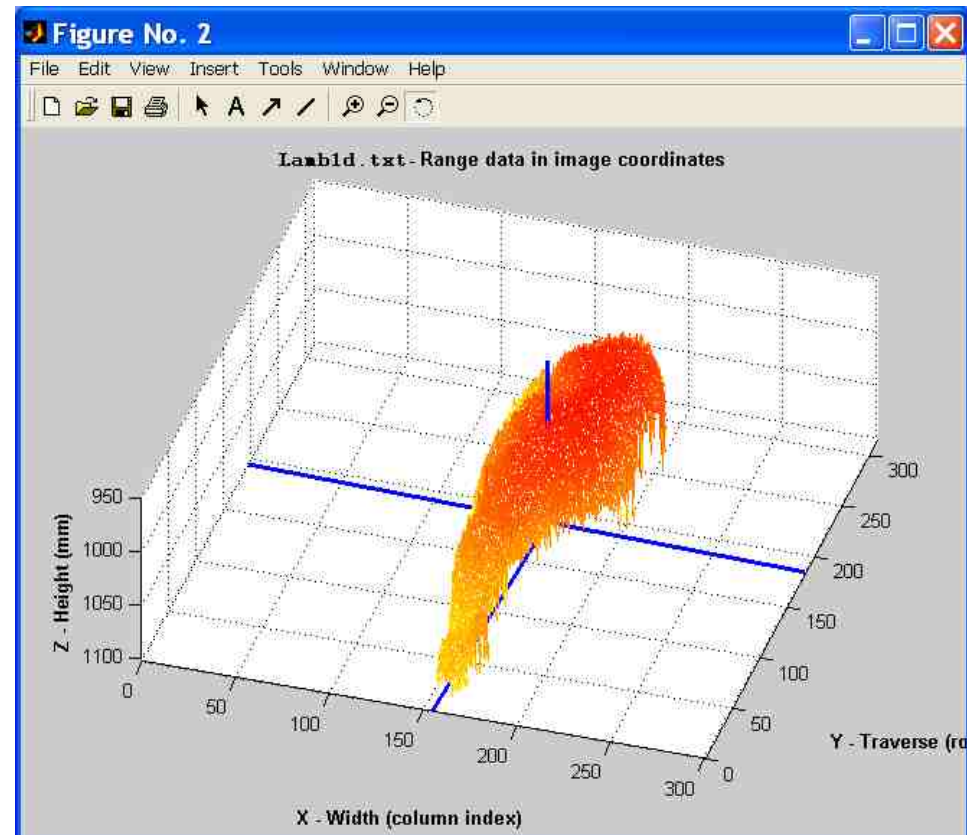


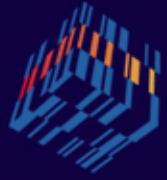
# Natural Product Sorter



## Current Status

- ▶ Original development in conjunction with AgResearch
- ▶ Further development required to make technology a commercial success
- ▶ Logical initial application where number of cut options are limited
- ▶ Looking for a commercial partner

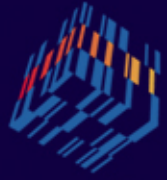




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# Fat Sucking



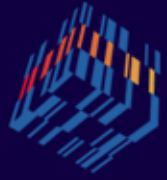


# Fat Sucking

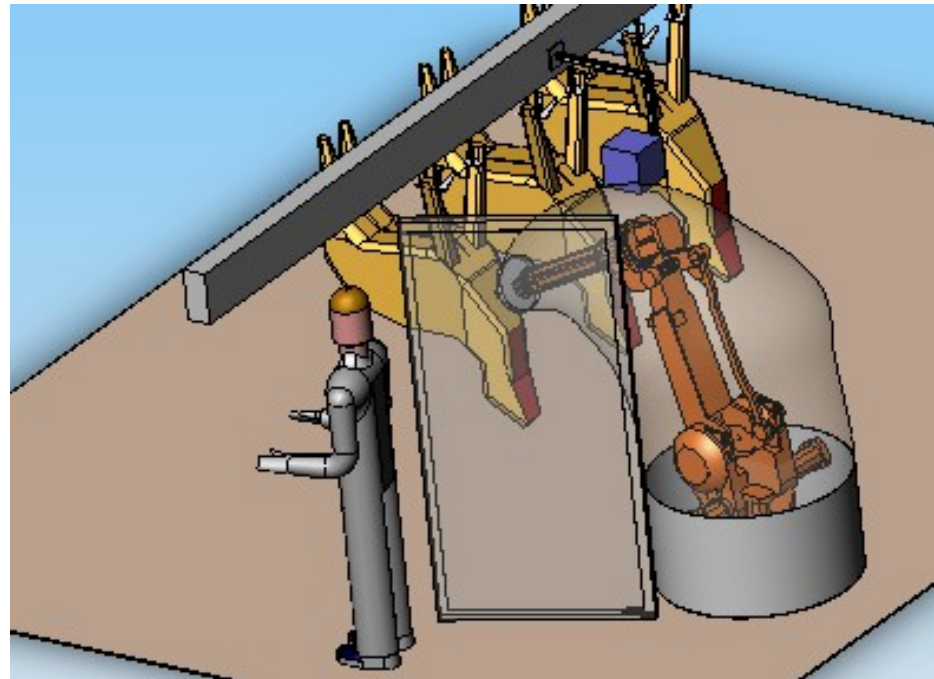


## FSA development

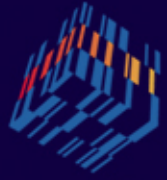
- ▶ **Technology available to DeviceWorks through our Australian technology partner.**
- ▶ **Currently in commercial operation in Colac CRF plant.**
- ▶ **Up to 9 carcasses per minute**



## Steam vacuuming





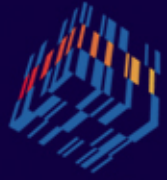


# Steam Vacuuming



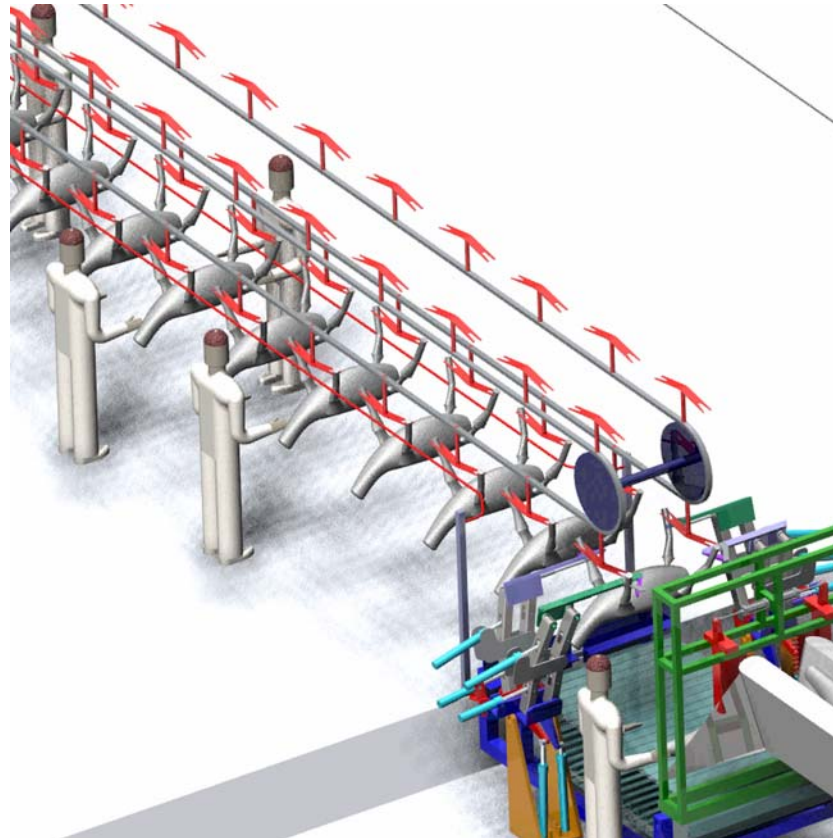
## **A logical task for automation**

- ▶ **DeviceWorks has developed a proposal**
- ▶ **FSA development currently being trailed by our Australian Technology partner**



DeviceWorks<sup>irl</sup>

## Were to next?



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[www.deviceworks.co.nz](http://www.deviceworks.co.nz)