# SMART FARM

CHLOE, ISSY AND LUCINDA

# Our problem

As the population of farmers are aging, they don’t want to leave their farms. Since we live in a rural community, our first thought was of the farms surrounding us. The average age of full-time farmers is 56 so we knew we had to think of something to make their jobs easier.

# Our hypothetical person

Name: **Chloe**

Gender: **Female**

Age: **88**

Job: **Retired, Farmer**

Interests: **Farming and Cows**

Location: **Barry, NSW**

# EMPATHY MAPPING

**They think and feel...**

They think about getting older and being less and less able to work on the farm that they love. They think they are becoming less capable of running their family farm.

**They see...**

They see all the cows and sheep and wonder who will care for them once they can't. They see their wide stretches of beautiful land.

**End user:**

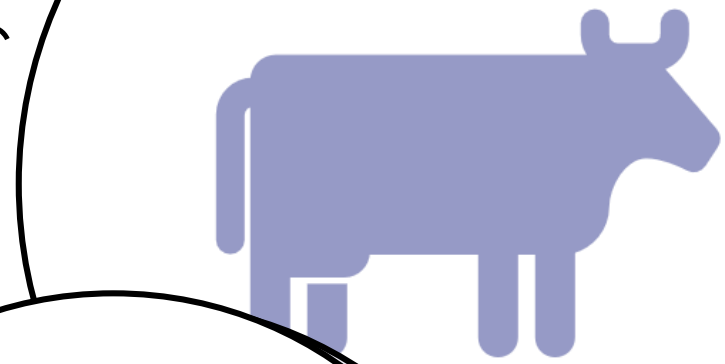
Elderly farmers

**They say and do...**

They talk about getting older and being less able. They look around the farm. They are getting less and less mobile. They notice they are getting older and they look to our solution. Yee haw

**They hear...**

They can hear all the livestock speaking. They hear their crops whistling in the wind. They hear the creaking of the door made generations before them.



# Ideation Process

We believe that we came up with a creative solution to our problem. As Chloe is getting older we figured she would want to stay with her cows. We wanted to make her able to take care of her cows even when she gets even older. She would be able to stay in her big beautiful house.

# Our solution

As stated previously, the average age of farmers is getting higher and higher. Less young people are willing to commit their whole lives to a single farm. These elderly farmers are becoming less and less mobile and we have the solution. A smart farm. Our smart farm would combine already existing technology with a green solution. It would be completely self-sufficient and controllable with the touch of a button so that these elderly farmers can still command the farm that they love.

# IDEA CHECKLIST

10 min

Write your 3 ideas across the top
Circle yes or no for each question

| | Idea 1: Automated gates | Idea 2: Solar powered Drones | Idea 3: Smart farm |
|---|---|---|---|
| **Does it solve the problem?** | Yes / No | Yes / No | Yes / No |
| **Does the end user have a good experience?** | Yes / No | Yes / No | Yes / No |
| **Is it safe?** | Yes / No | Yes / No | Yes / No |
| **Is it ethical and environmentally friendly?** | Yes / No | Yes / No | Yes / No |
| **Your question:** Is it durable? | Yes / No | Yes / No | Yes / No |
| **Your question:** Is it sustainable? | Yes / No | Yes / No | Yes / No |

# Ethical Considerations

We believe that our smart farm is ethically appropriate towards the elderly. Our smart farm would be completely optional for any people who wish to continue to run their farm the average cost of a nursing home per year is around 73 000. If the user lives for the next 10 years, the cost of that nursing home would be 730 000. This means that the cost of them staying on their farm is much less than a nursing home. They can stay happy on their beautiful farm and save money at the same time.

# Cost and Materials

Automatic gates - $1200

Cameras - $2000 - $1500 to install

Cow Feeders - $2000 per feeder - $2000 to install each feeder

Drones - $4000 per drone

Microchips - $10 per microchip - $100 for implant gun

Identification Collars - $5 per collar

Solar Panels – For 6kW its from $5200 to $6700 depending where you are

Cow equipment total - $15 per cow (hypothetical cow no. – 1000)

(200 acre farm – 80 acres per paddock – Two gates per paddock -

**TOTAL COST – 129350 + Batteries to store electricity**