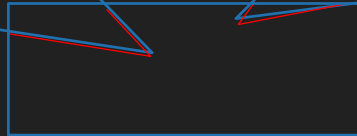
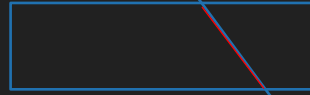


Agricultural Robots

Zheng, Sharon

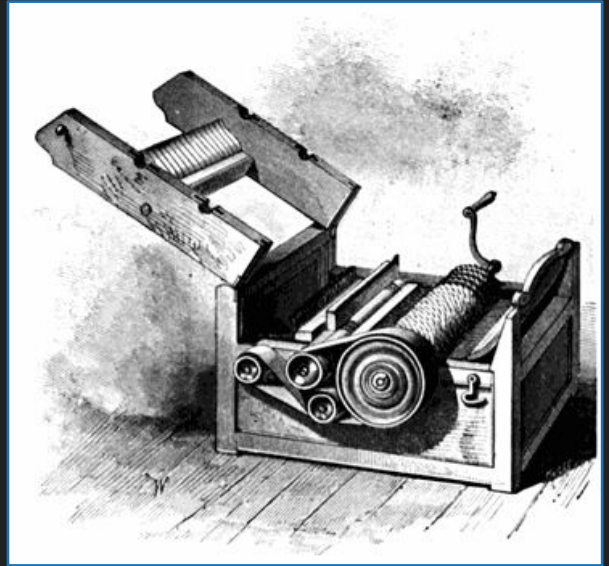
Overview

- History
- History 2
- Plan and Implementation
- Plan and Implementation 2
- Pros
- Cons
- Summary
- References



History

- Also called an agribot or agbot
- A revolution in agriculture occurred due to machines (1752-1900)
- Robotics introduced in 1920
- 1974 - Eli Whitney's cotton gin
- 1950s and 1960s - research of autonomous agricultural vehicles



- Cotton gin isolated cotton seed from cotton fiber
 - 50 pound/day
 - Increases demand for slave labor
 - (picture above is his cotton gin)
- In 1980 computers made the vehicle vision possible
 - Not perfect, needed cable systems

History 2



- Machines have been used and improved for decades now
- Harvesting and picking
- Use for livestock
- Seeding and planting
- Sorting and packing

- Are the current agricultural robots we have today, use today mostly
- Harvesting and picking is the most popular
- Seeding and planting is emerging recently;
- A lot of things have the line blurred between we already have it or it is close
 - Hard to tell, different websites give different results
- Livestock: Milk cows, rear sheep, push feed, clean manure

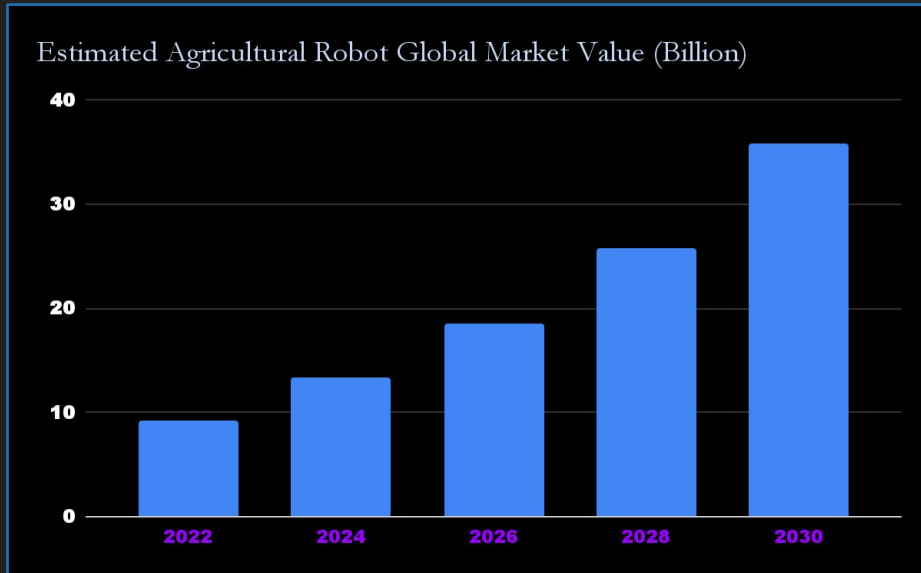
Plan and Implementation

- Emerging applications are robots/drones for weed control
- Fertilizing, irrigation
- More appliances for precision agriculture



- Automation tech into bio-systems
 - Agriculture, forestry, greenhouse, horticulture, fisheries
- Some people have weed control already?
- Since it has been getting more attention in recent years, partly due to the over 9 billion population estimations of 2050.

Plan and Implementation 2



- Estimated Increased an average of 40% every two years
- This is due to the fact that it is drawing new professionals, companies and investors.

Pros

- Do not get sick/ need time off
- Fewer error, higher speeds
- Higher quality products can be sensed more accurately
- reduce use of pesticides
- Creates a job
- Can do things harmful to workers
- Lowers cost of farming



- The job is both and bad thing, less original agricultural jobs, but the new ones are more technology focused
- Lowers cost of farming itself, and probably food in the market.
- Job: making and fixing the robots
-

Cons

- Pricing competitive,
- Cost a lot of money to make/buy robots
- Need maintenance
- Some farmers lose jobs
- Can change the emotional appear of agriculture
- Energy issues costly
- No real intelligence, which is needed sometimes



- Emotionally, the art of farming will not feel the same, like how some farms who are not mass producing things will take better care of their animals, yet due to a higher price, less people buy from them, and not many are willing to do so.
- Hard on farmers who stick to it by hand and efforts and appreciation for farming will likely drop

Summary

- Good and Bad
 - Job gets replaced with another
- This market is predicted to go up by a lot, a good thing to some.
- More food produced
 - Great considering amount of people predicted



- Old jobs get replaced by new ones, regarding the same field basically.
 - Do some research on jobs you may like, in a few years, it may be replaced
- Currently used for many things, plans have been made to add to that list
- They can be an advantageous and a disadvantage
- Same idea as a lot of current jobs that is under pressure from developing technologies
- Some people lose jobs, others gain, if the same amount of new jobs will be available as the old are losing debatable

References

- [Agri Farming](#)
- [Eli Whitney Invents the Cotton Gin](#)
- [Agricultural robots advantages, disadvantages](#)
- [Agriculture robot types](#)
- [Agricultural robots Market\(Global\)](#)
- [Robots in the future of Farming](#)
- [\(Robot\) Farming Photos](#)