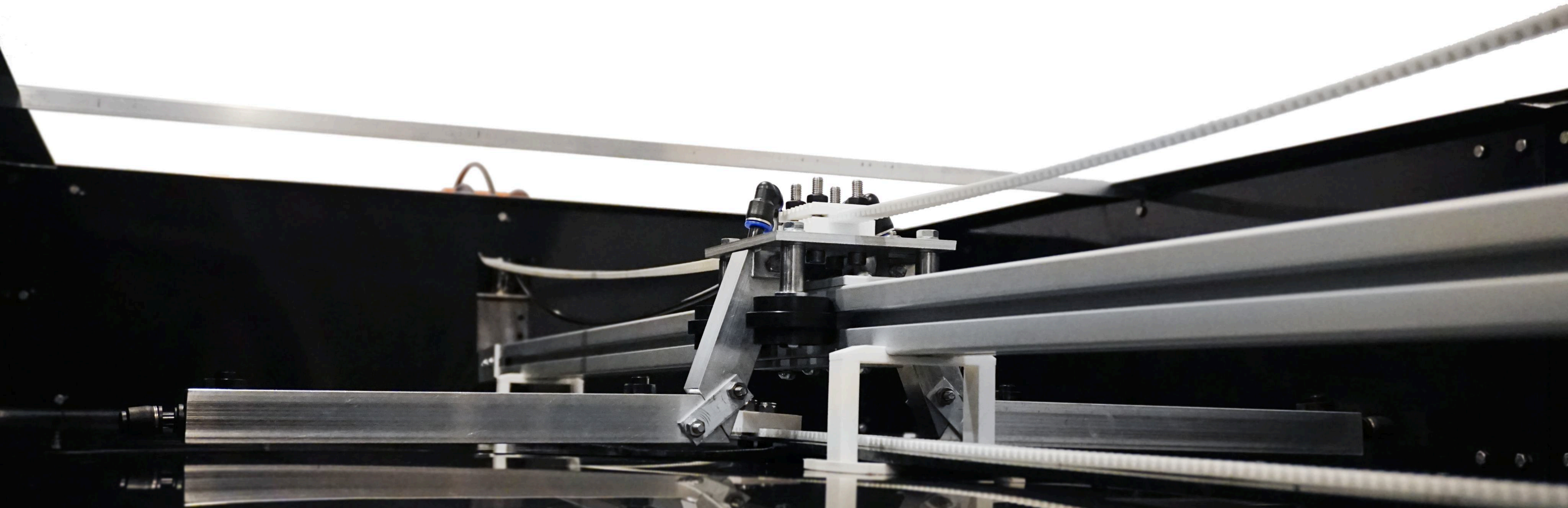


ARIS

auto-rail
irrigated
systems



aeroponics

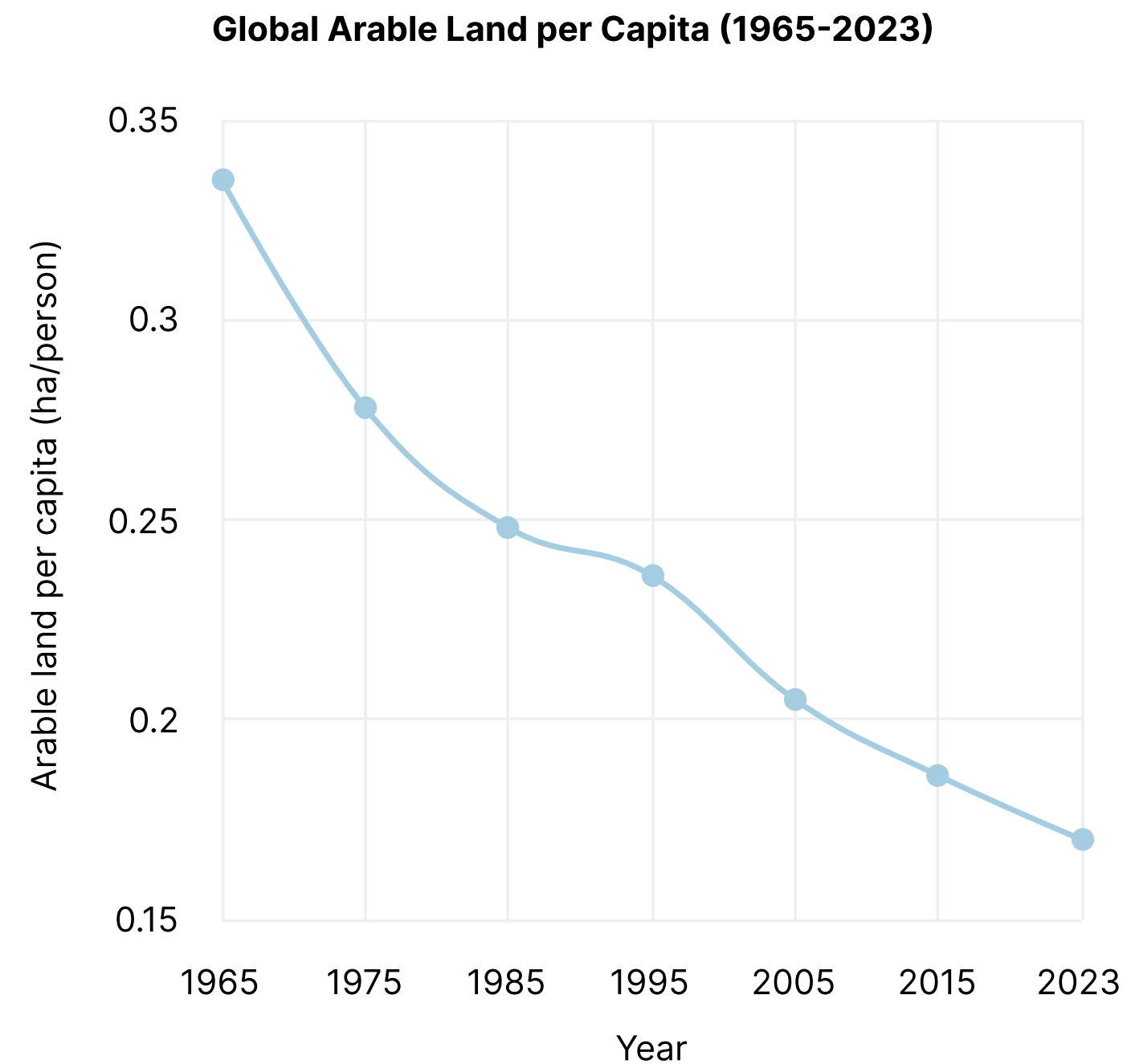
/AIR-oh-PON-iks/ *noun*

a method of growing plants in which roots are suspended in air and intermittently misted with a nutrient-rich solution, allowing for high oxygen exposure, rapid growth, and efficient use of water and nutrients

The Tipping Point

Arable land per capita is declining

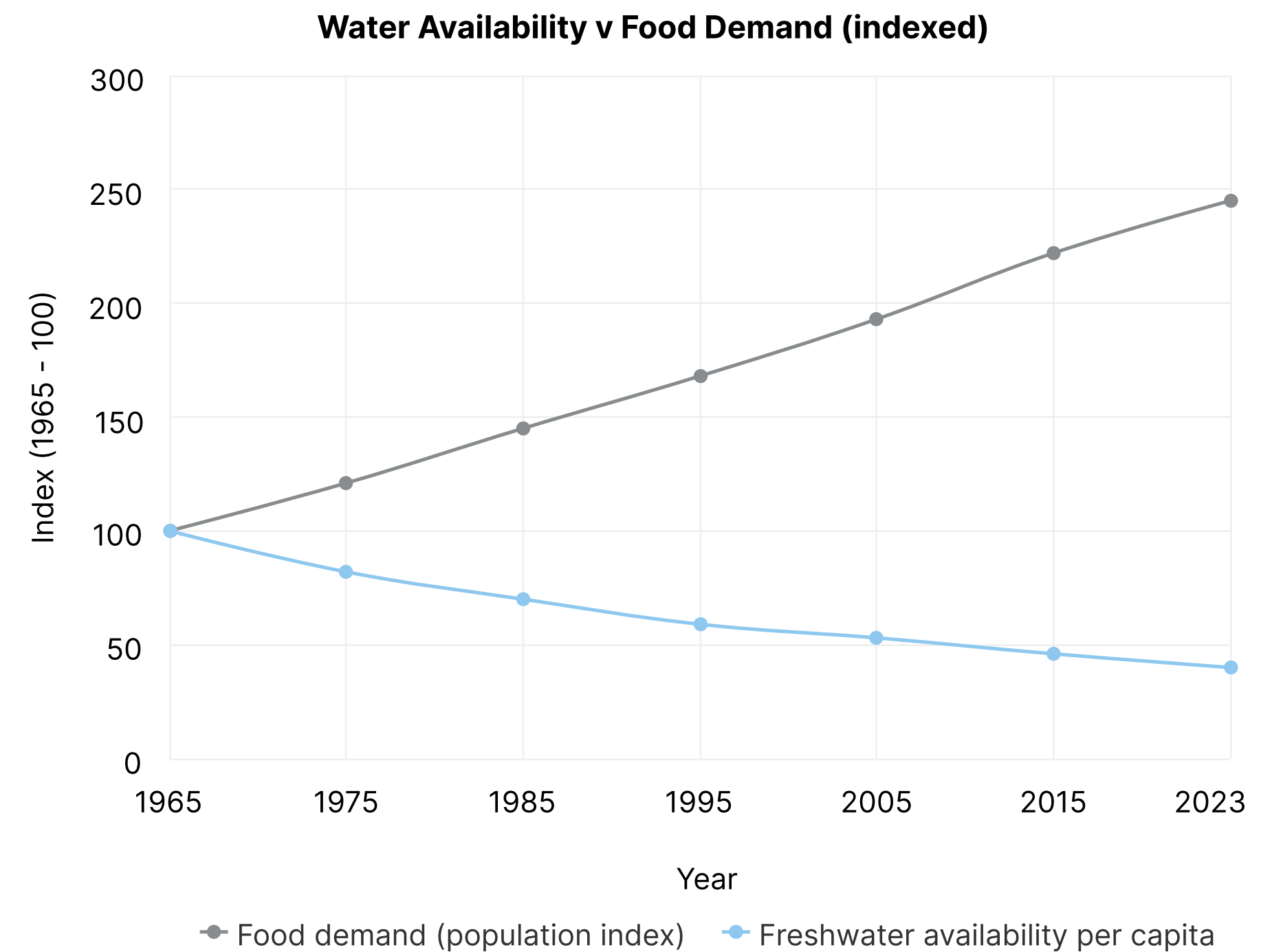
Urbanization, soil degradation, desertification, are becoming irreversible



Arable land per capita from FAO / World Bank trend data

Agriculture has outgrown its water supply

Freshwater availability is no longer scaling proportionally with food demand



*Indexed comparison (1965 = 100).
Freshwater per capita from FAO / World Bank trend data.*

Sustainable Abundance

Using **98%** less water, commercial aeroponics delivers up to **10x** the productivity of soil farming, and **3x** the productivity of hydroponic farming in the same footprint

A humanity with commercialized aeroponics has...

98%

Less water required per unit of food

10x

More food per unit of land

3x

Higher crop productivity than commercial greenhouses

Whats holding us back?

“traditional” aeroponics

Traditional aeroponics uses hundreds of static nozzles that require industrial tubing and pressure systems to operate.



Each additional nozzle adds a failure point that can kill crops and damage harvests.



The irrigation infrastructure required for traditional HPA is both costly and mechanically inefficient.

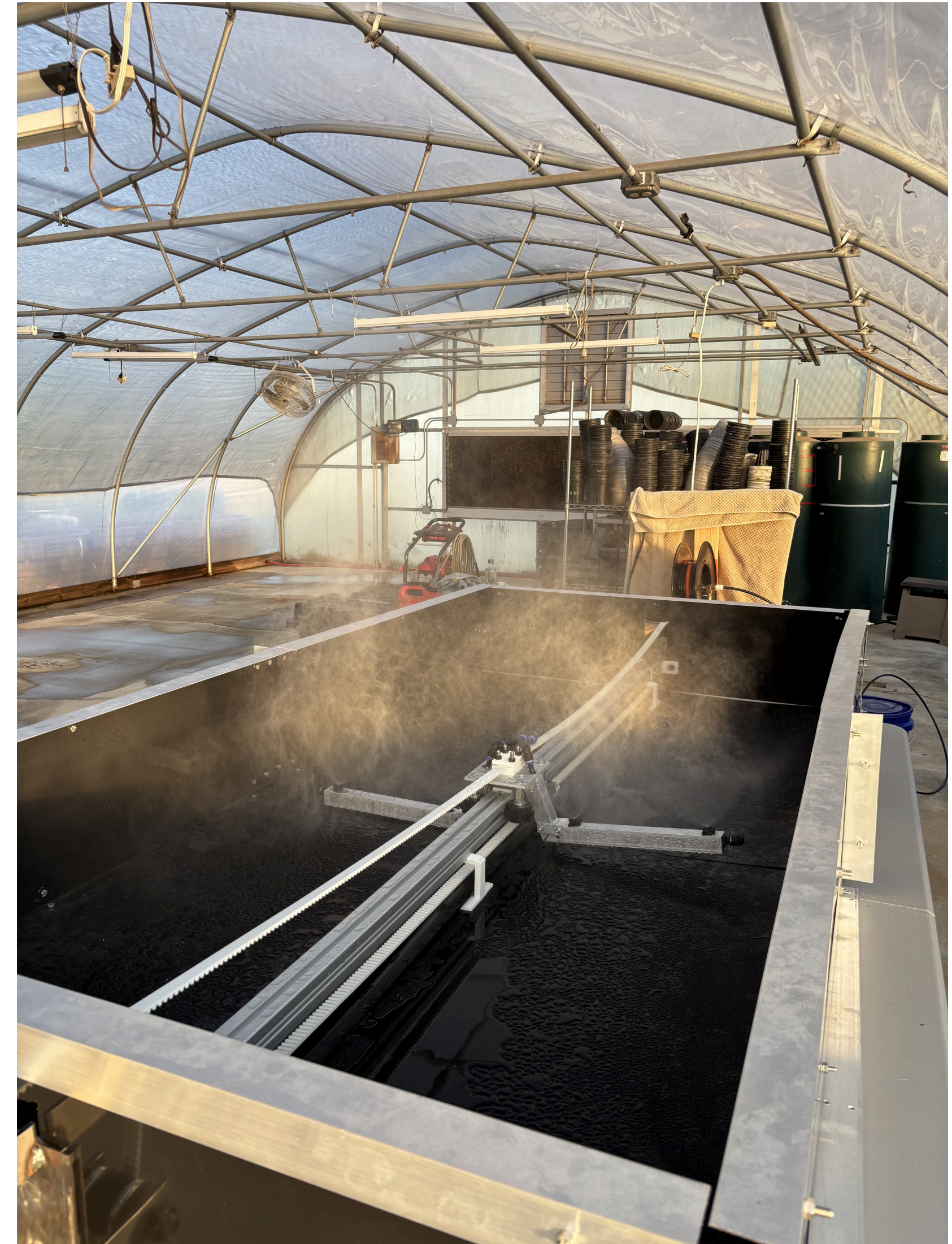
ARIS

ARIS replaces these nozzle assemblies with one moving fixture that covers the same growth area using...

100x less hardware

50x fewer failure points

8x lower energy consumption



ARIS v1 prototype

ARIS

pilot deployments

Currently deployed: 48 ft commercial pilot at Hurricane Creek Farms, Pelzer, SC

Collecting trial data, user testimonials, ROI metrics, and other factors of validation

This data is being used to facilitate paid pilots of ARIS at additional commercial greenhouses

Raised capital is deployed through scaled deployment of ARIS and paid pilots

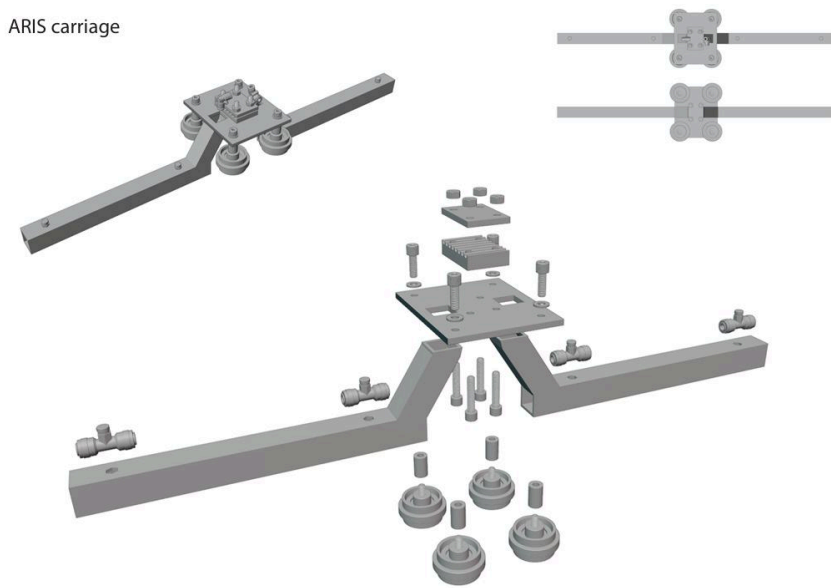


Hurricane Creek Farms pilot deployment

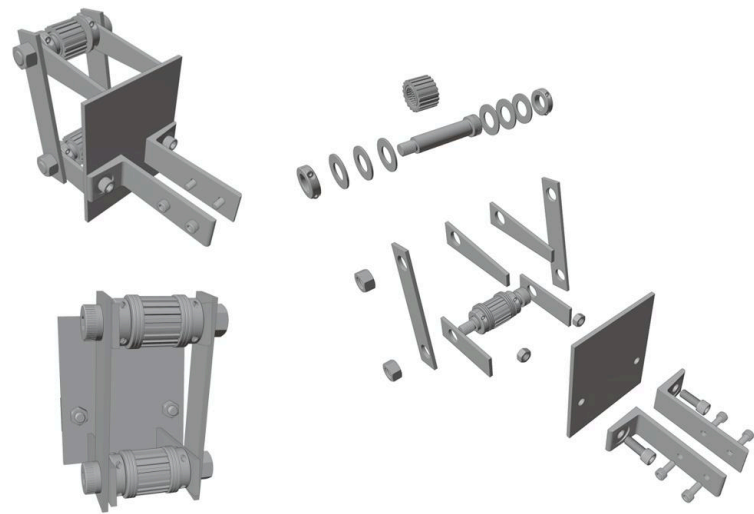
ARIS

Precision design & CAD IP

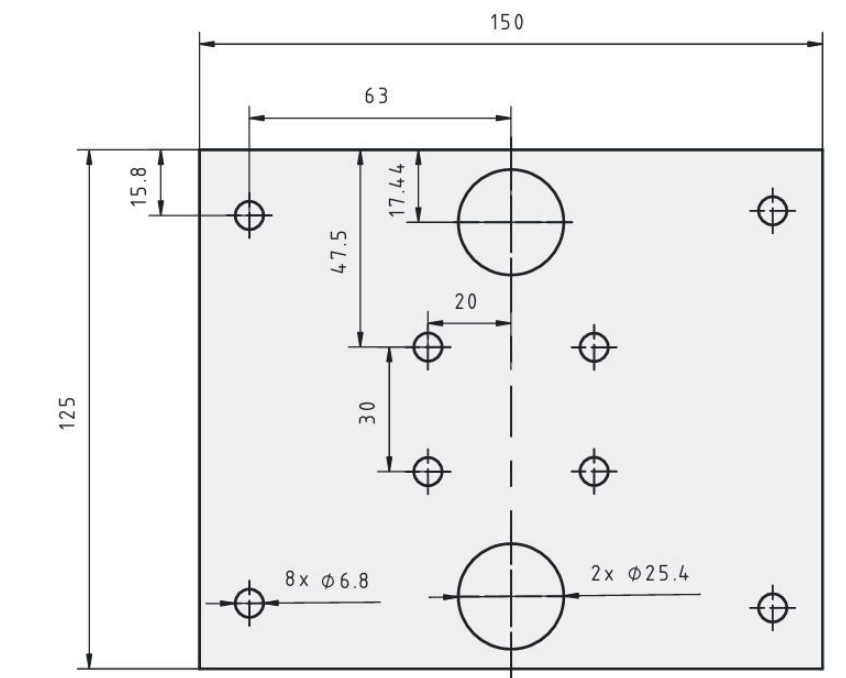
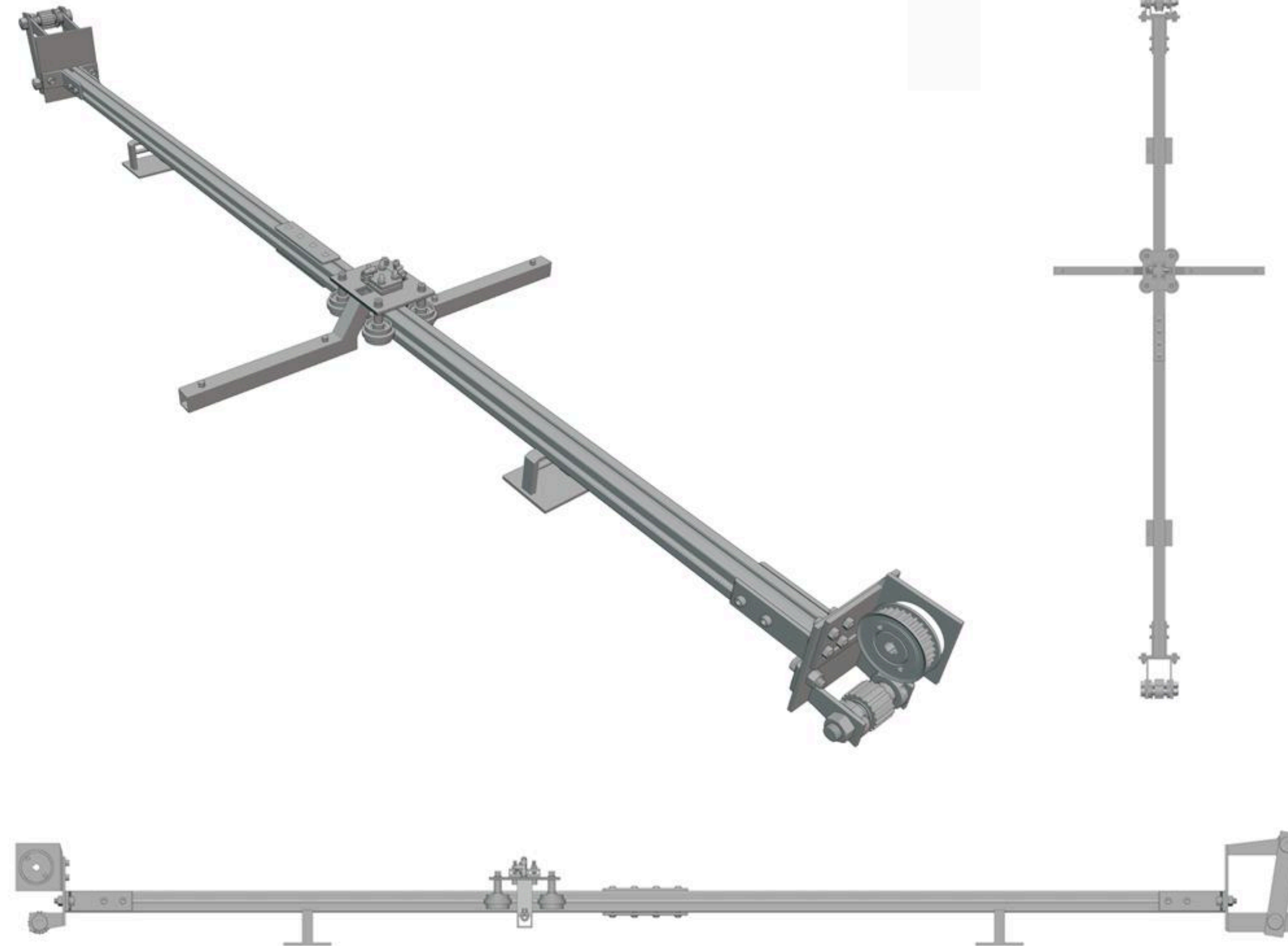
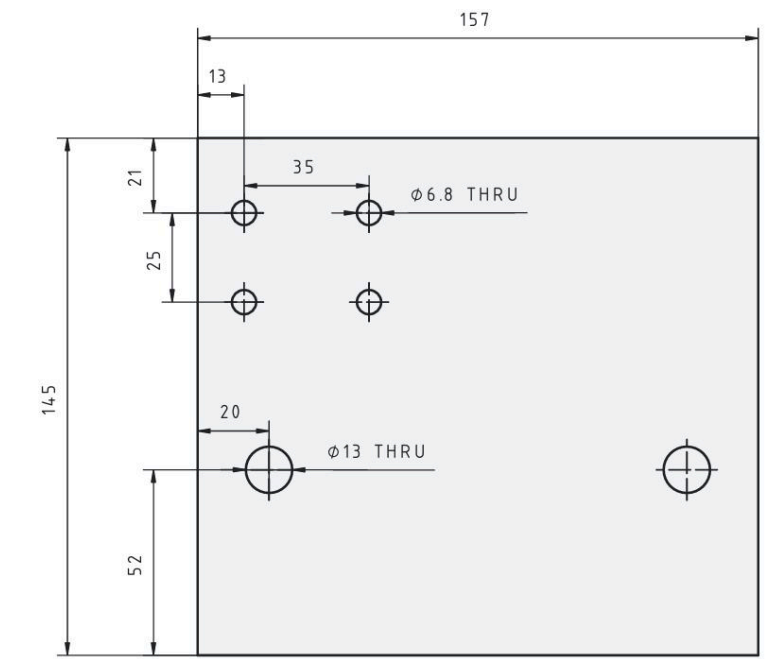
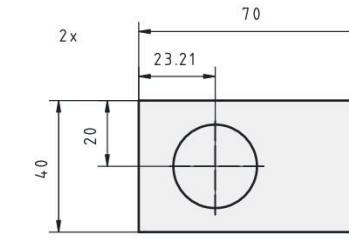
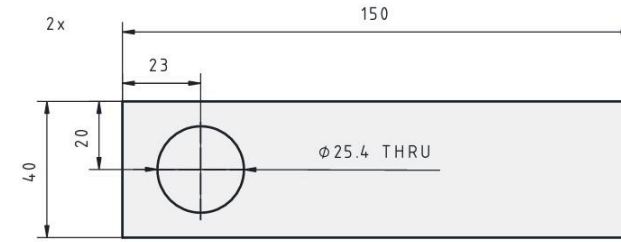
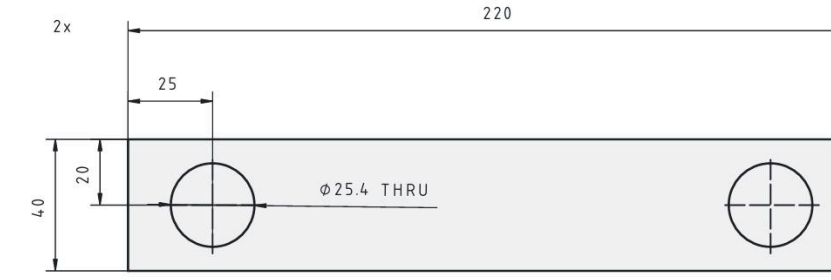
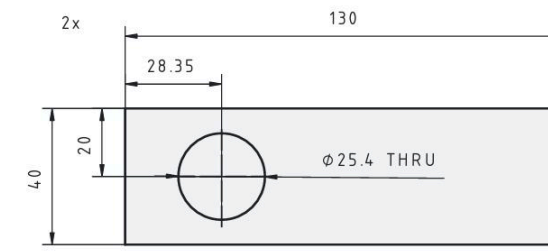
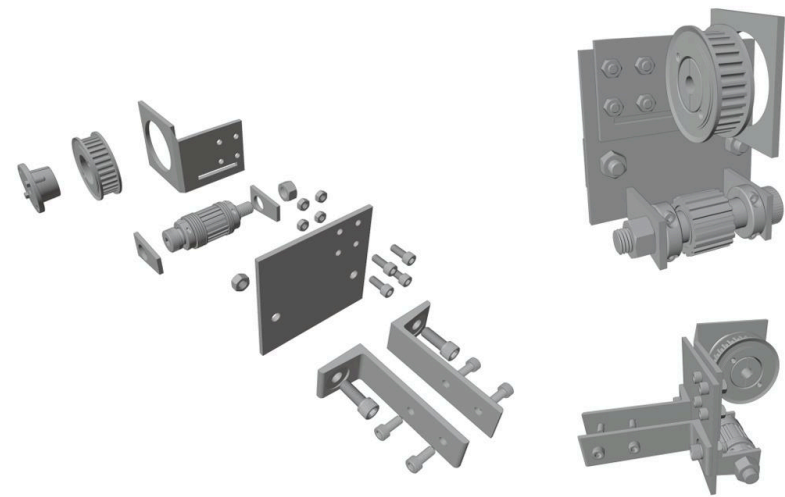
ARIS carriage



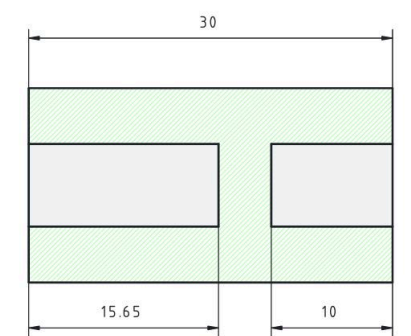
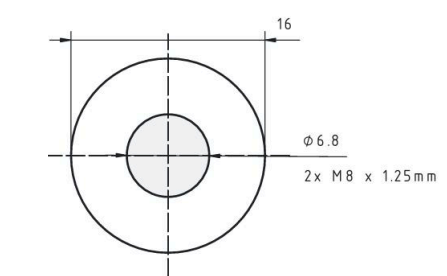
idler pulley mount



drive pulley mount

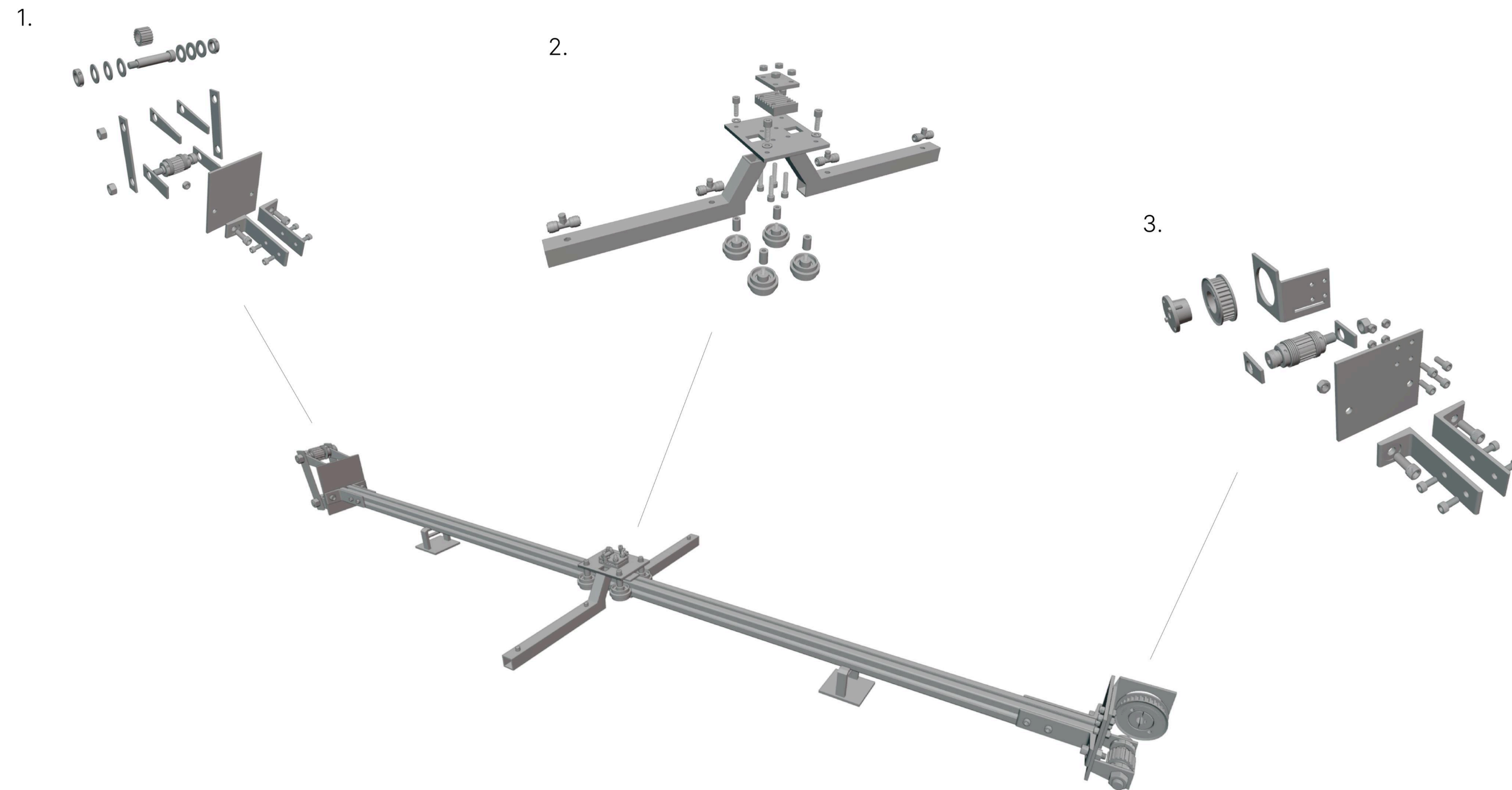


UNITS: mm



ARIS

Precision design & CAD IP



1. Idler pulley

The idler pulley maintains tension and alignment throughout the pulley. Tension prevents sag, reducing abrasion on timing belt. Alignment reduces friction losses so that the pulley can move back and forth with less energy.

2. ARIS carriage

ARIS required a minimalist design for the version 1 carriage so that failure points can be easily tested and monitored. The carriage sprays nutrient solution onto plant roots through the nozzles attached to its hanging arms.

3. Drive pulley

Powers the entire pulley system, capable of pulling up to 200 ft of timing belt + ARIS carriage on a 24/7 continuous duty cycle.

The drive pulley is the heart of ARIS, any flaw in it's design will lead to total failure for all other system components.

ARIS

Hardware IP

Provisional utility patent (App. No. 64/034,735) filed April 10, 2026, covering the rail-guided moving fixture, drive mechanism, and method of delivering aeroponic mist across long growbeds.

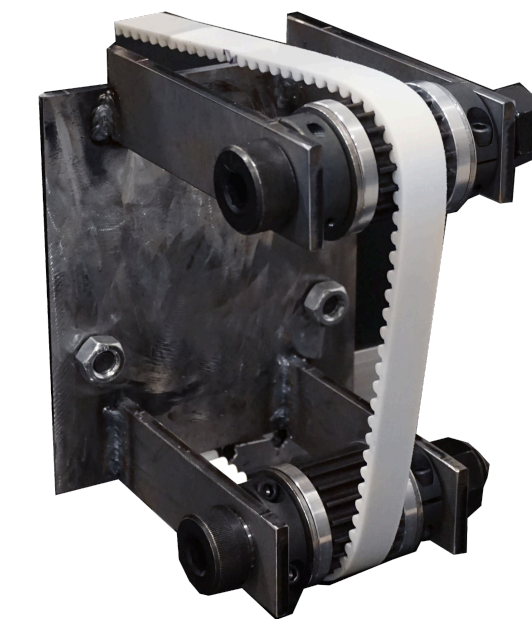
Drive pulley & retractable reel



ARIS fixture irrigation/locomotion



Idler pulley system



Market size

Greenhouse producers measure irrigation equipment expenses by the square foot

Historically, aeroponics required massive investment from farmers in order to deploy at scale

ARIS is the first aeroponics system that competes with hydroponics hardware on price, ensuring greenhouse producers ROI on their farms

Hydroponics (DWC) cost per sq/ft

~ \$20

Hydroponics (NFT) cost per sq/ft

~ \$25

“traditional aeroponics” cost per sq/ft

~ \$60

ARIS cost per sq/ft

~ \$25

Market size

ARIS flips the commercial problem:

Greenhouse facilities don't adapt to aeroponics..

Aeroponics adapts to greenhouses

Through designs that can be retrofitted into standard greenhouse infrastructure

When this happens, market size is measured in sq/ft, not dollars

Total greenhouse sq/ft in North America

~ 1 billion sq/ft

Total greenhouse sq/ft in United States

~ 400 million sq/ft

Global ARIS - compatible greenhouse sq/ft

~ 50 billion sq/ft

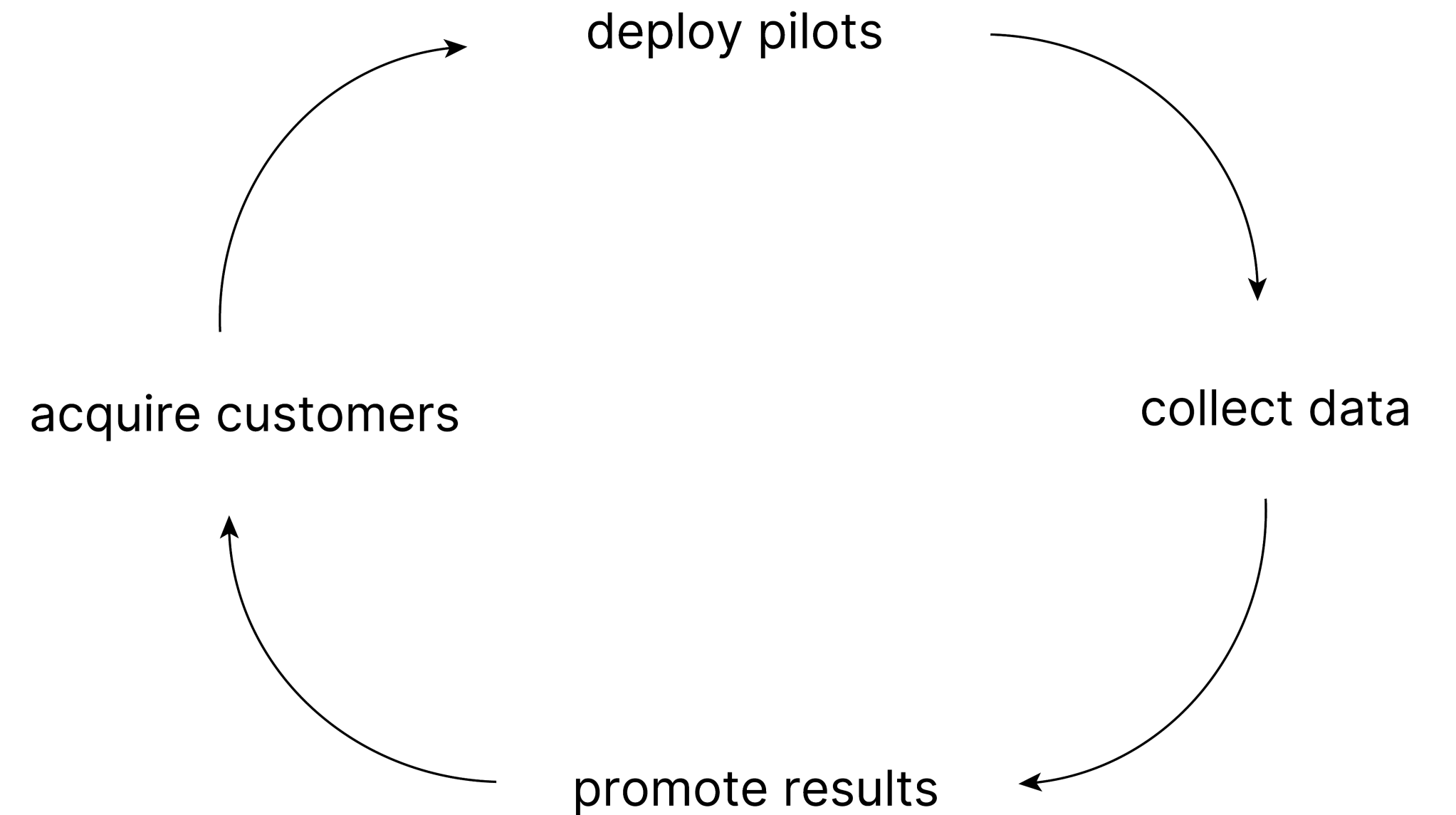
Pilots & funding

Farmers only buy technology they trust

ARIS funding is directed toward **paid deployments** that generate performance data, user testimonials, and technical feedback

Pilots are being used to build credibility in **ARIS** as a commercially viable system.

In order to facilitate **ARIS** adoption at commercial scale this cycle is repeated at greater and greater volume.



5/30/26 update

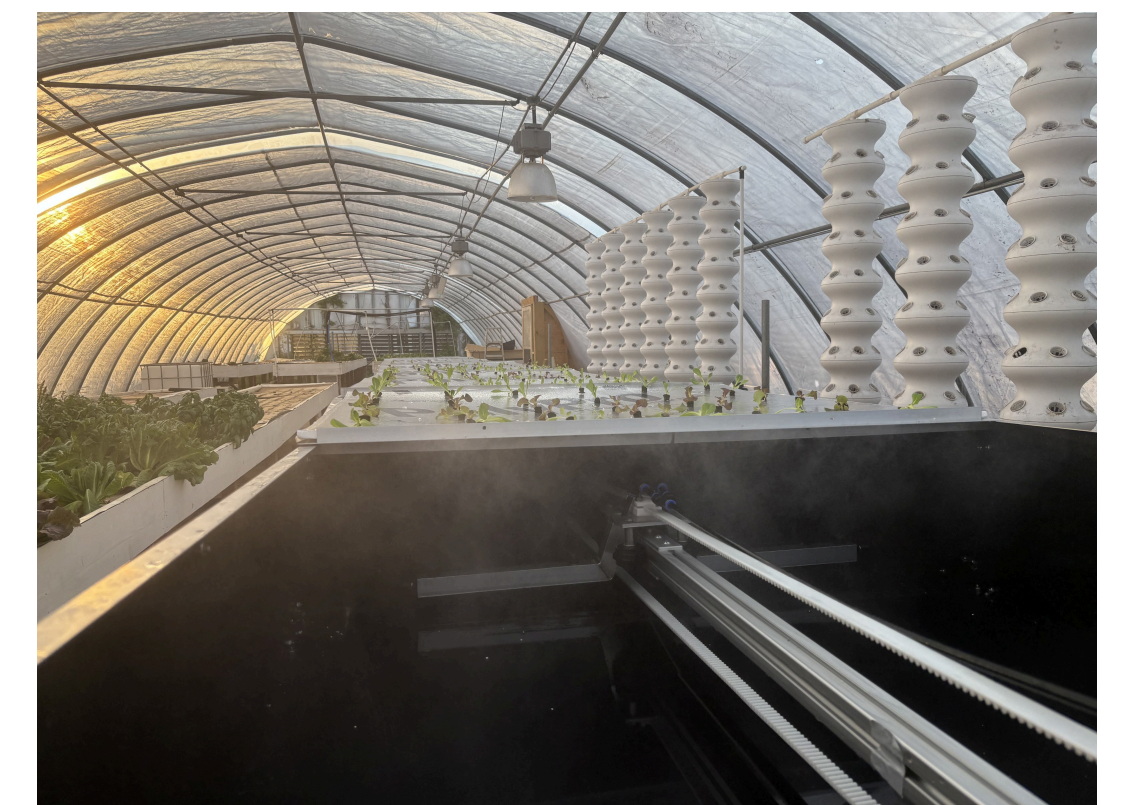
a few things that arent covered in original deck

Secured \$70k in additional angel investment; being used to deploy a 1600 sq ft (16 ft x 100 ft) ARIS system at another commercial greenhouse.

Thanks to grow chamber redesigns, learned from Hurricane Creek pilot, this 1600 sq ft system will only cost ~**\$9k** in materials to deploy, compared to the original 200 sq ft pilot that cost **\$5k** in materials to produce

Apologies for piling all of this on last slide, very busy..

Augustus



4 ft x 48 ft ARIS pilot at hurricane creek