

# Presentation Team

## Blue

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# Key findings competitors

## What did you learn by analyzing the competitors

- What are the major competitors?

	Strengths	Weaknesses
Alimak  <b>ALIMAK</b>	<ul style="list-style-type: none"><li>-provides permanent and temporary high quality elevators, construction hoists and work platforms built on rack and pinion and traction technologies.</li><li>-durability</li><li>-industrial innovators</li></ul>	<ul style="list-style-type: none"><li>-With a review of only 3.7 out of 5 stars on glassdoor, workers are not very happy with their working conditions.</li></ul>
Boecker  <b>Böcker</b> MY WAY TO THE TOP	<ul style="list-style-type: none"><li>-Products adaptable to angled and inclined building structures, something that stands out from most competitors.</li></ul>	<ul style="list-style-type: none"><li>-</li></ul>



# Key findings startups

What did you learn by analyzing the startups?

Please startups in the field of Vertical Transportation System (this is the market segment of GEDA)

Startups	Business Ideas
skyline robotics 	provides automated window cleaning solutions for high-rise buildings.
Thyssenkrup Elevator 	provides innovative elevator systems that used the advanced technologies such as magnetic levitation and ropeless systems, including a new multi maglev elevator which uses AI and IoT technology that is specialized to develop smarter elevator systems.



# Key findings phase 2

What are the key insights/learnings from Phase 2

**Pre-manufactured goods continue to grow in size and weight, transportation requirements are increasing.**



**Construction companies will choose to rent transportation equipment more in the future**



**Horizontal transportation systems may offer a promising solution**



# Key findings phase 2

What are the key insights/learnings from Phase 2

**Buildings  
become taller  
and complex**



**Cost-sharing  
arrangements for hoists  
as an option to reduce  
costs**



# Phase 3: Ideate

## List of ideas

**Mobile Hoist on a trailer/cart**

**Hoist user interface  
(screens for general information and one for failures)**

**One rail system around the building with multiple hoists on it**

**Hoists at every corner of the building with bridges that are horizontally connected**

**Cost- sharing the hoists:  
Software Solution**

**Shared platform for Dealers → Benefits:  
increased capacity planning**

# Phase 3: Ideate

## Ideation

Our main Ideas:

A

**The Bridge Solution**

B

**The Hoist Trailor Solution**  
**"I-Hoist"**

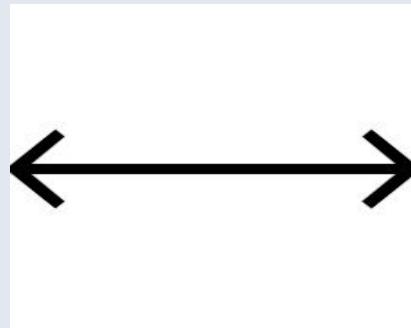
A & B

**Combination of both**

# Phase 4: Prototyping: Problem A

Problem: lack of horizontal mobility

Lack of horizontal hoist mobility within  
the construction industry



# Phase 4: Prototyping: Bridge Solution “360” A

## Problem: lack of horizontal mobility

The Bridge Solution covers the problem of a lack of horizontal hoist mobility.

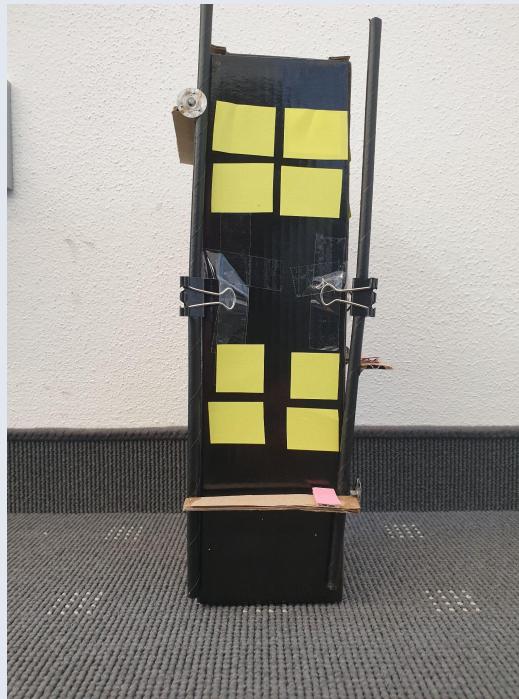
- Hoists at every corner of the building with bridges that are horizontally connected
  - bridges move on the posts with a rail system so they're independent from the hoists
  - for Offloading: mechanic ramp out of bridge
- modular bridges that can be connected to be adjusted to the width of the building and to stabilize → heavier loads  
Problem: two posts standing in one place which interrupt the moving of the materials on the bridges

Solution: 180° turn mechanism to make the hoist on the bridge switch to the next rail



# Phase 4: Prototyping: Bridge Solution A

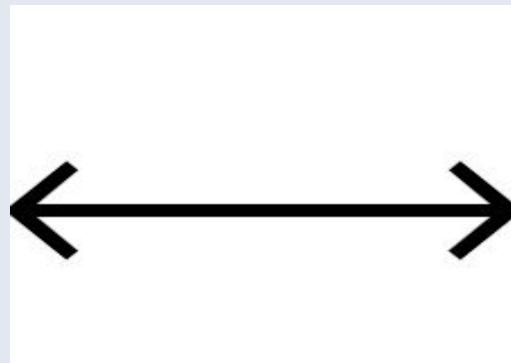
Prototyping



# Phase 4: Prototyping: Problem B

Problem: Lack of mobility around construction site

Hoist mobility problem



# Phase 4: Prototyping: “I-Hoist” Solution B

## Prototyping

The Trailor Solution covers the problem of the lack of mobility around the construction site.

- Increase audience exposure
- Mobile Trailor with hoist on it
- Comes in different sizes: small /medium/big or truck size for different usage



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GEDA 300 ZP P

# Phase 4: Prototyping: “I-Hoist” Solution B

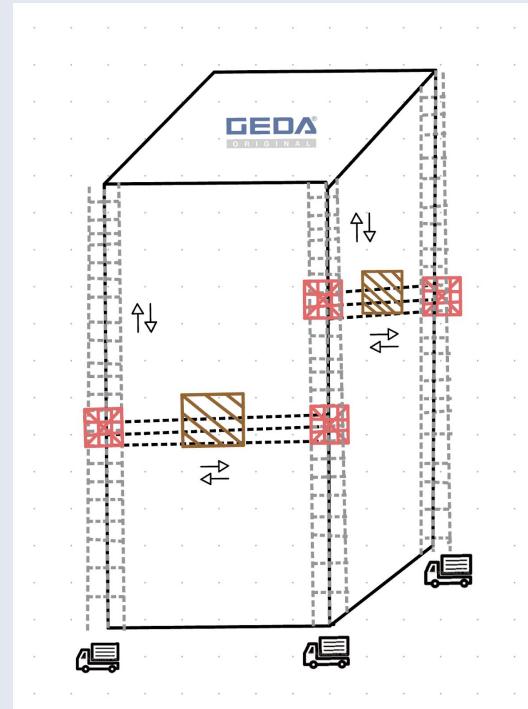
Prototyping



# Phase 4: Prototyping: Combination of Both A & B

## Prototyping

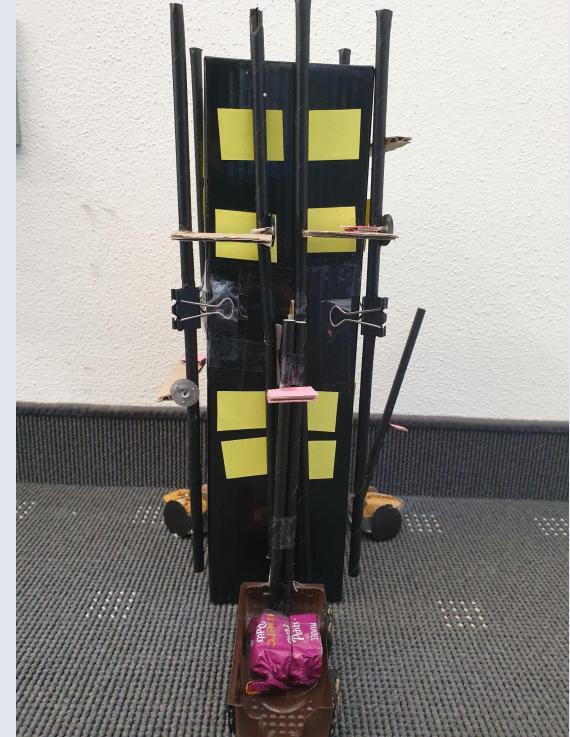
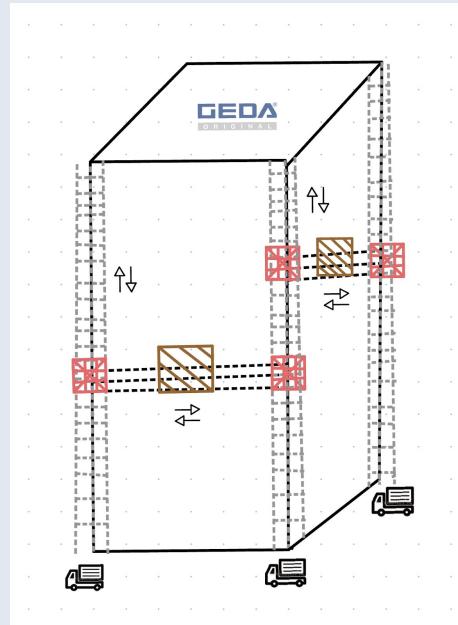
What if we combine both of the ideas?



# Phase 4: Prototyping: Combination of Both A & B

## Prototyping

The combination of both solutions could solve the lack of mobility and horizontal movement



# Phase 5: Feedback- Bridge Solution A

## Feedback

Pros	Cons	Solutions
Horizontal movement	Wider buildings: High cost because of many modular bridges	Partially using the Hoist Trailor Solution in combination with the bridges to save costs
Offloading material with a mechanic ramp	Screwing the posts into the building: high effort	Place metal clamps inside of the windows of the building , then screw the posts onto the pole → no screwing, easy to take off
180° turn mechanism for bridges		

# Phase 5: Feedback- "I-Hoist" Solution B

## Feedback

Pros	Cons	Solutions
Mobility	Could be too tall and unstable	Telescopic/modular posts that can expand/built for medium sized buildings <input type="checkbox"/> Option - combine two telescopic posts
	Screwing the posts into the building: high effort and cause damage	Place metal clamps inside of the windows of the building , then screw the posts onto the pole → no screwing, easy to take off

# Phase 5: Feedback- Combination of both A & B

## Feedback

Pros	Cons	Solutions
Horizontal movement	Wider buildings: High cost because of many modular bridges	Telescopic /modular posts that can expand for medium sized buildings → maybe two of them connected for taller buildings
Offloading material with a mechanic ramp	Screwing the posts into the building: high effort	Place metal clamps inside of the windows of the building , then screw the posts onto the pole → no screwing, easy to take off
180° turn mechanism for bridges		
Mobility	Could be too windy/unstable and for tall buildings you have to screw it into building	Telescopic posts that can expand for medium sized buildings □ maybe two of them connected for taller buildings. Straps with metal clamps inside of the windows structure.