

Team 506: Corning Plugger Pallet Short Part Stabilization

Pawel J. Grum | Robert C. Kosmas | Taylor M. Larson | Segundo A. Sanchez | Jared T. White

Team Members



**Pawel J.
Grum**
*Mechanical Test
Engineer*



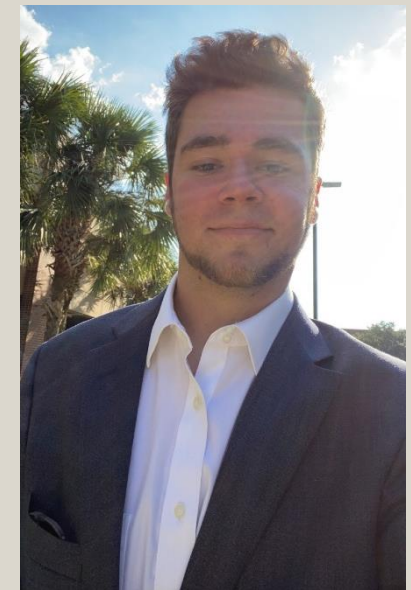
**Robert C.
Kosmas**
*Structural Design
Engineer*



**Taylor M.
Larson**
*Dynamics
Engineer*



**Segundo A.
Sanchez**
*Materials Analysis
Engineer*



**Jared T.
White**
*Facilities and
Manufacturing Engineer*

Jared White

Sponsors and Advisors

Jeffery Roche



Engineering Mentor

*Heavy Duty Project
Manager*

Jeffery Stott



Engineering Mentor

*Equipment Engineering
Manager*

Eric Hellstrom, Ph.D



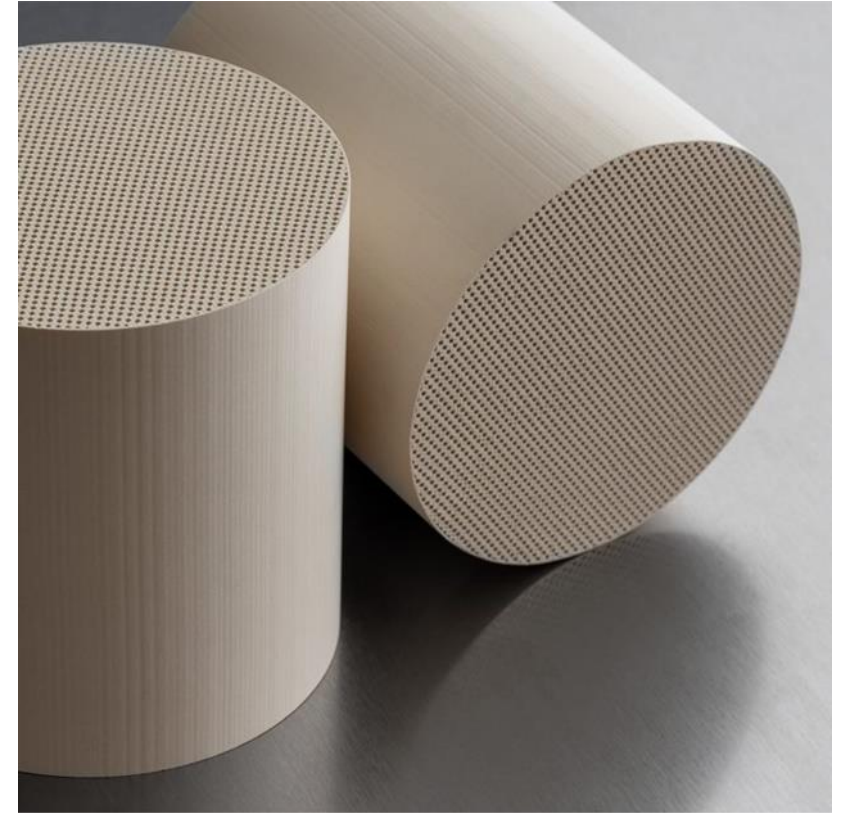
Academic Advisor

*Materials Science
Program Director*

Jared White

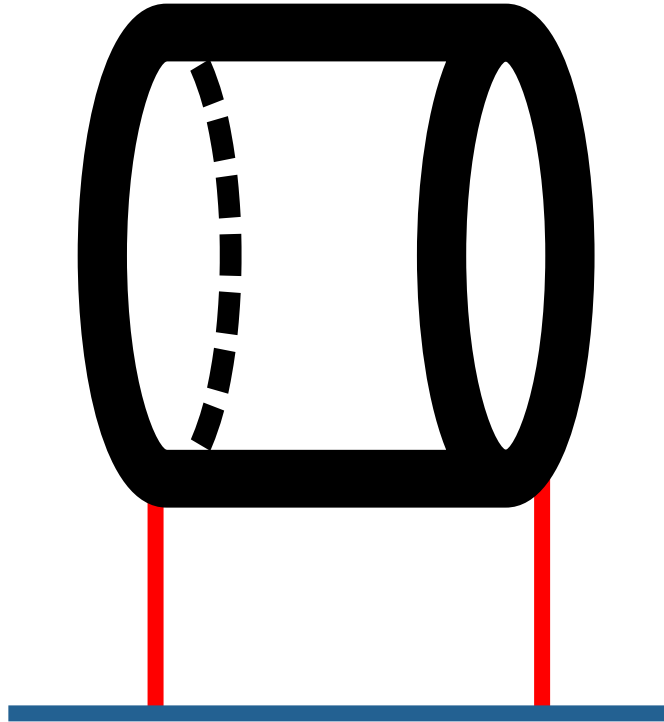


Sponsor Background



Jared White

Project Background



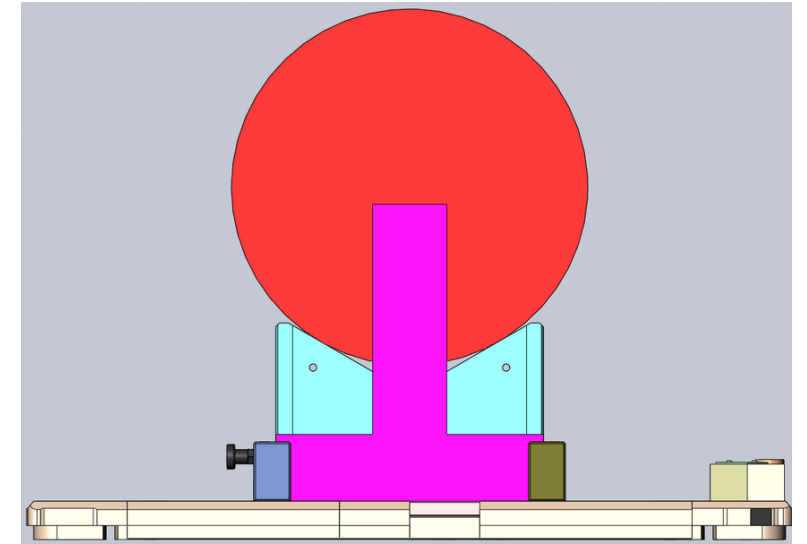
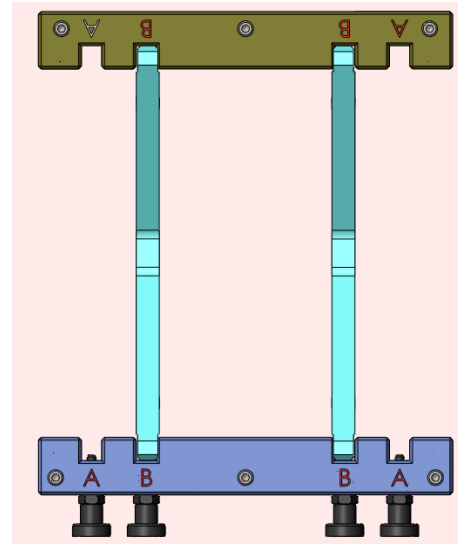
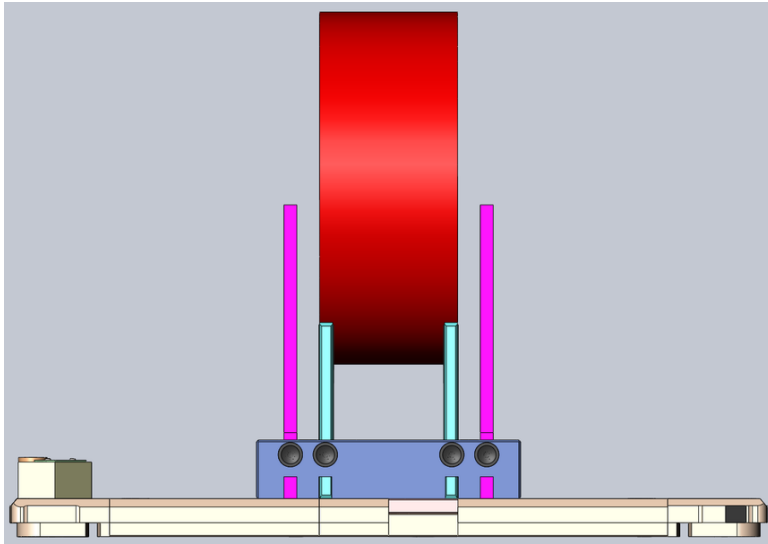
Jared White

Project Background



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Current Design



Jared White

Project Objective

The objective of this project is to design and create a stabilization system to protect ceramics on Corning's conveyor while reducing the required manual labor.

Jared White

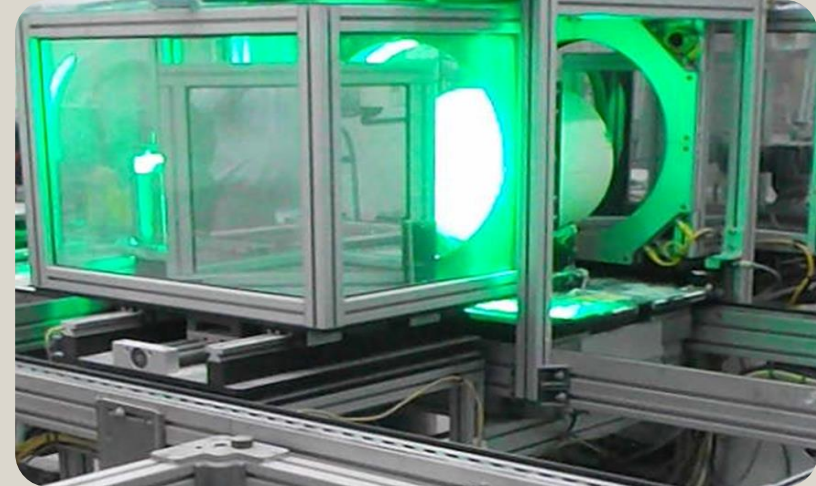


Key Goals

Prevent Damage



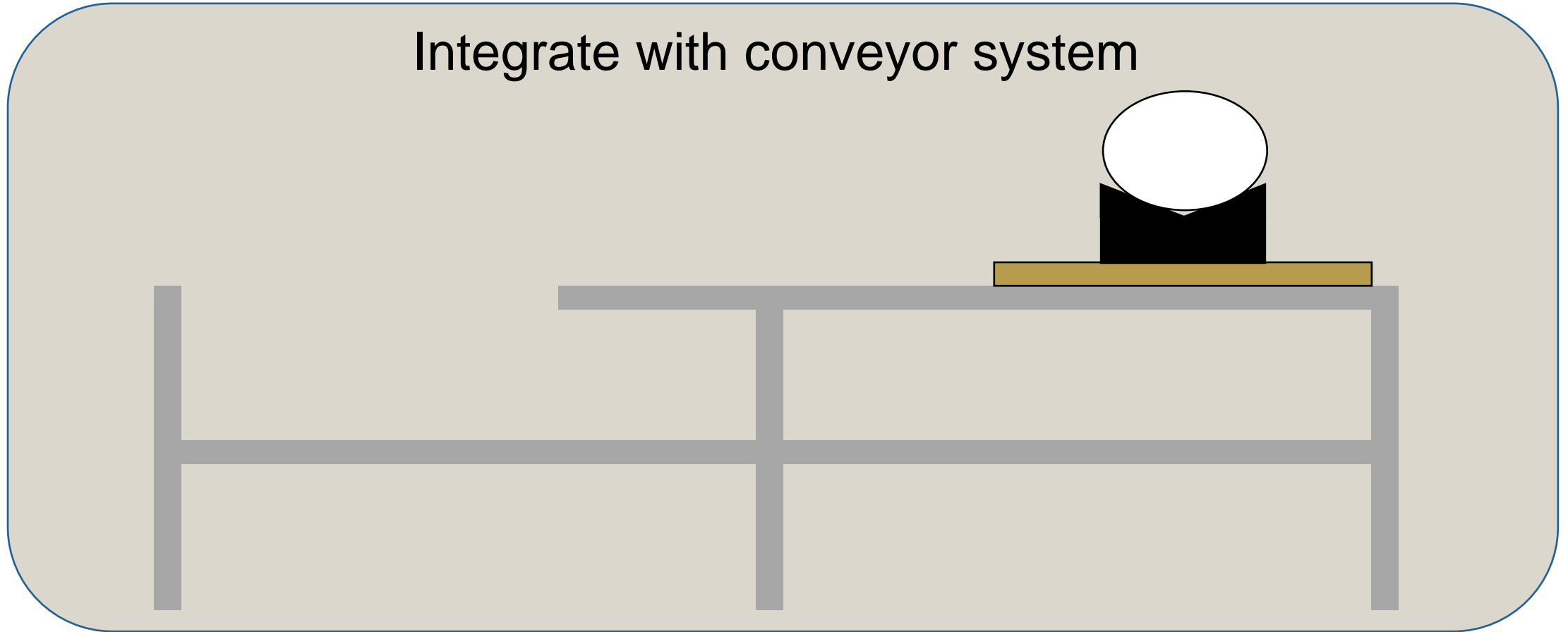
Limit Interaction



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Key Goals

Integrate with conveyor system



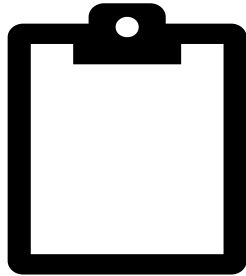
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Assumptions

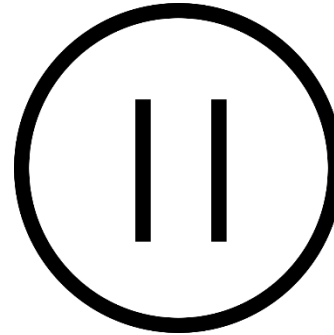
Conveyor and
Pallets
Remain Level



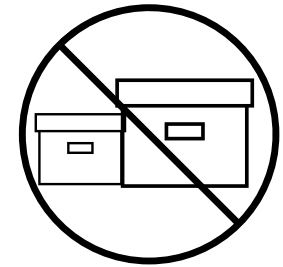
Accurate
Information/Data



Current Plant
Conditions
Remain
Constant

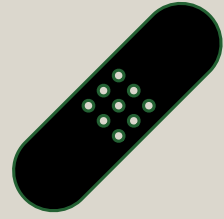


Pallets are
Uniform



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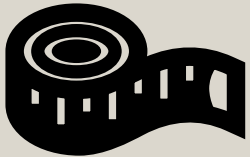
Customer needs



Protect Ceramics



Limit Human Interaction



Comply with Space Limitation

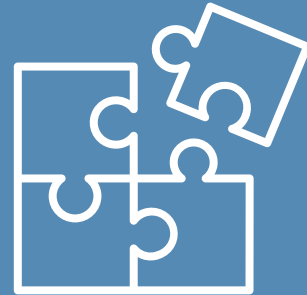
Segundo Sanchez

Functional Decomposition

Stabilization



Compatibility



Support



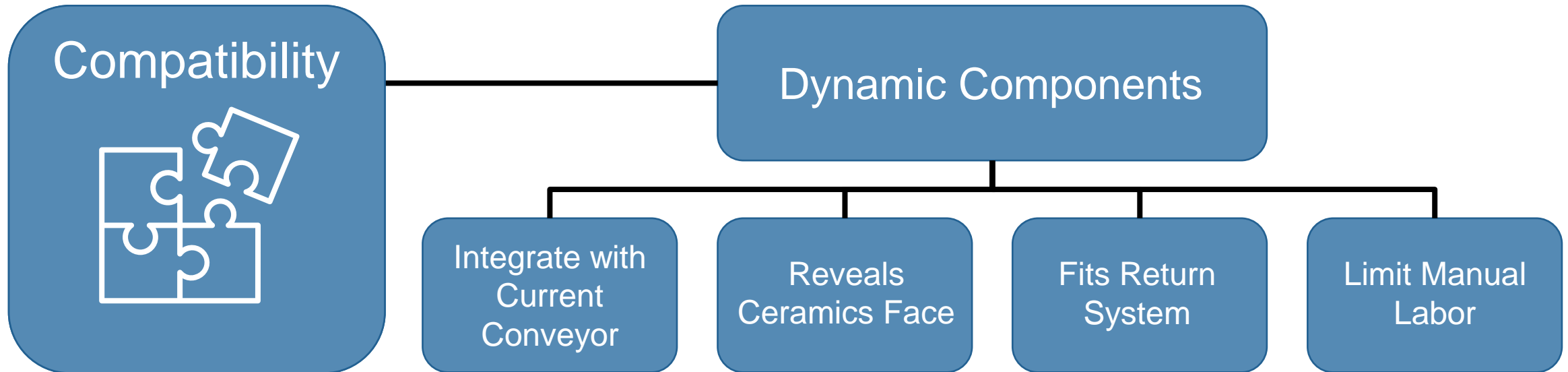
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Functional Decomposition



Segundo Sanchez

Functional Decomposition



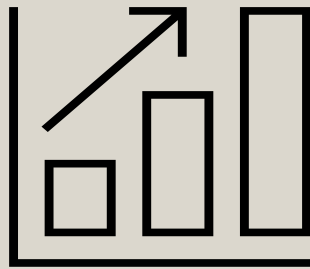
Segundo Sanchez

Functional Decomposition



Segundo Sanchez

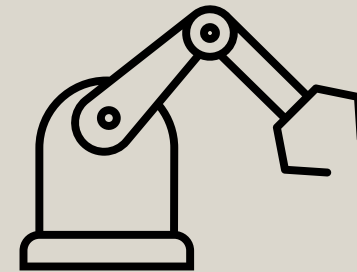
Future Work



Target & Metrics



Concept Generation
& Selection



Prototyping

Segundo Sanchez

Thank you!

Pawel J. Grum | Robert C. Kosmas | Taylor M. Larson | **Segundo A. Sanchez** | **Jared T. White**