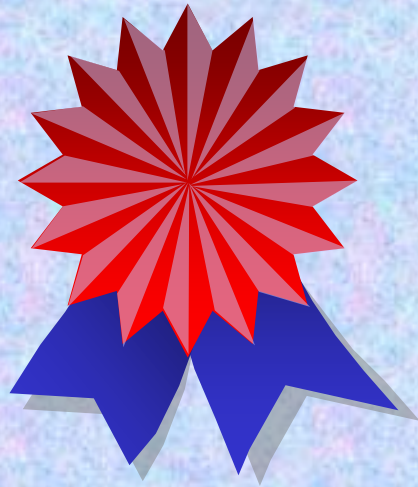


Texas State University-San Marcos
Department of Engineering and Technology

***2006 Best Product Development Contest
Award***



2006 Best team: OSB Transfer Cart

Nathan Massey (team manager)

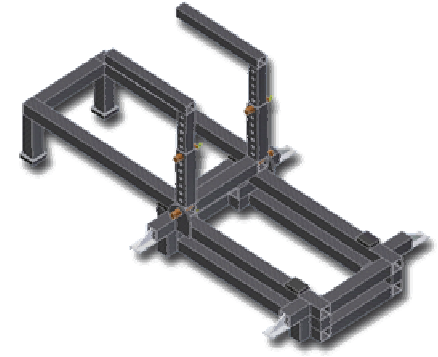
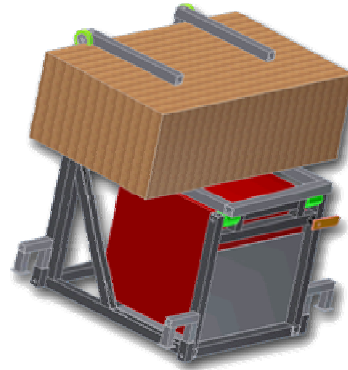
Sheldon Tullos

Brad Gilbert

Aaron Schulle



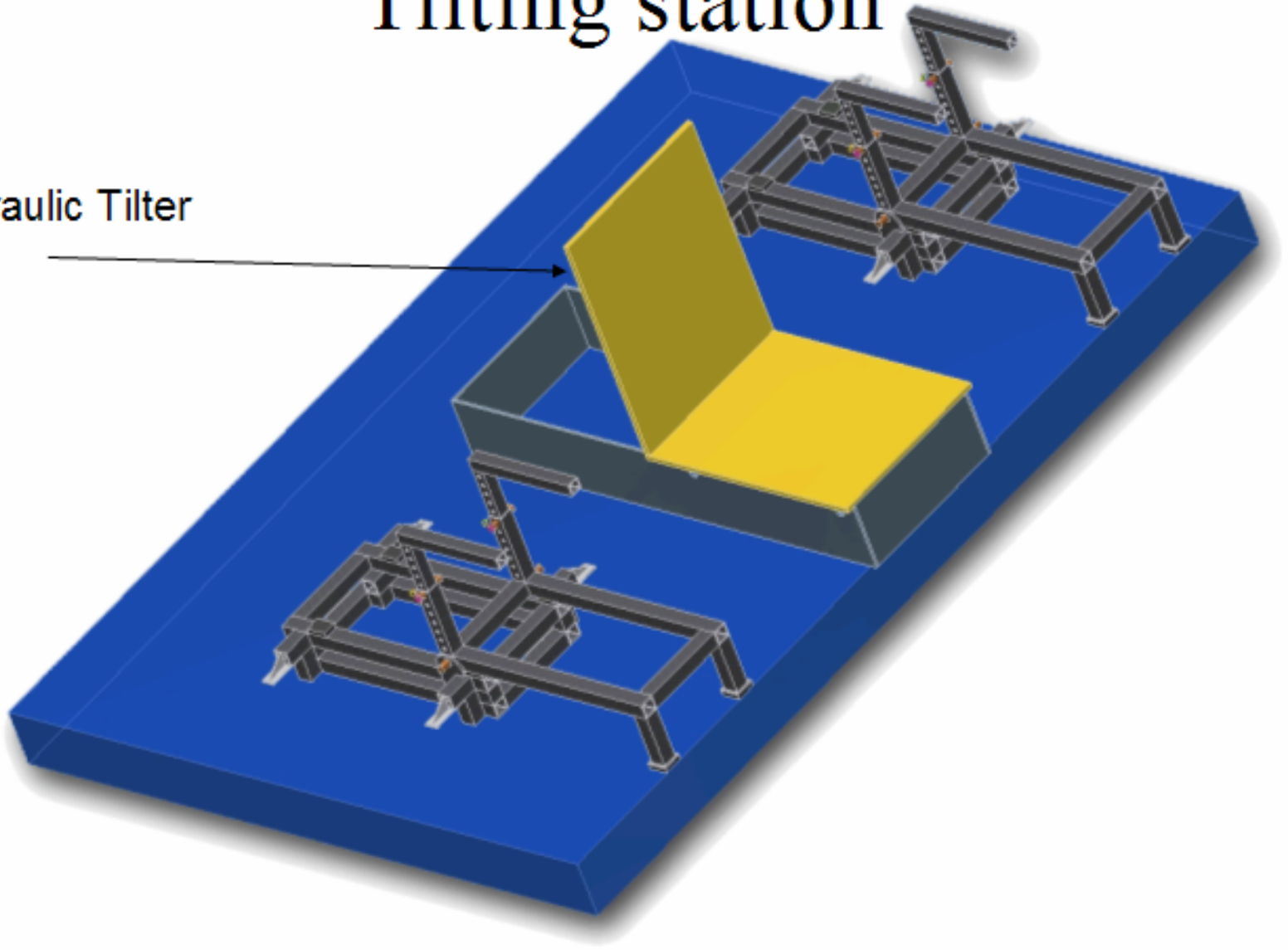
Concept scoring



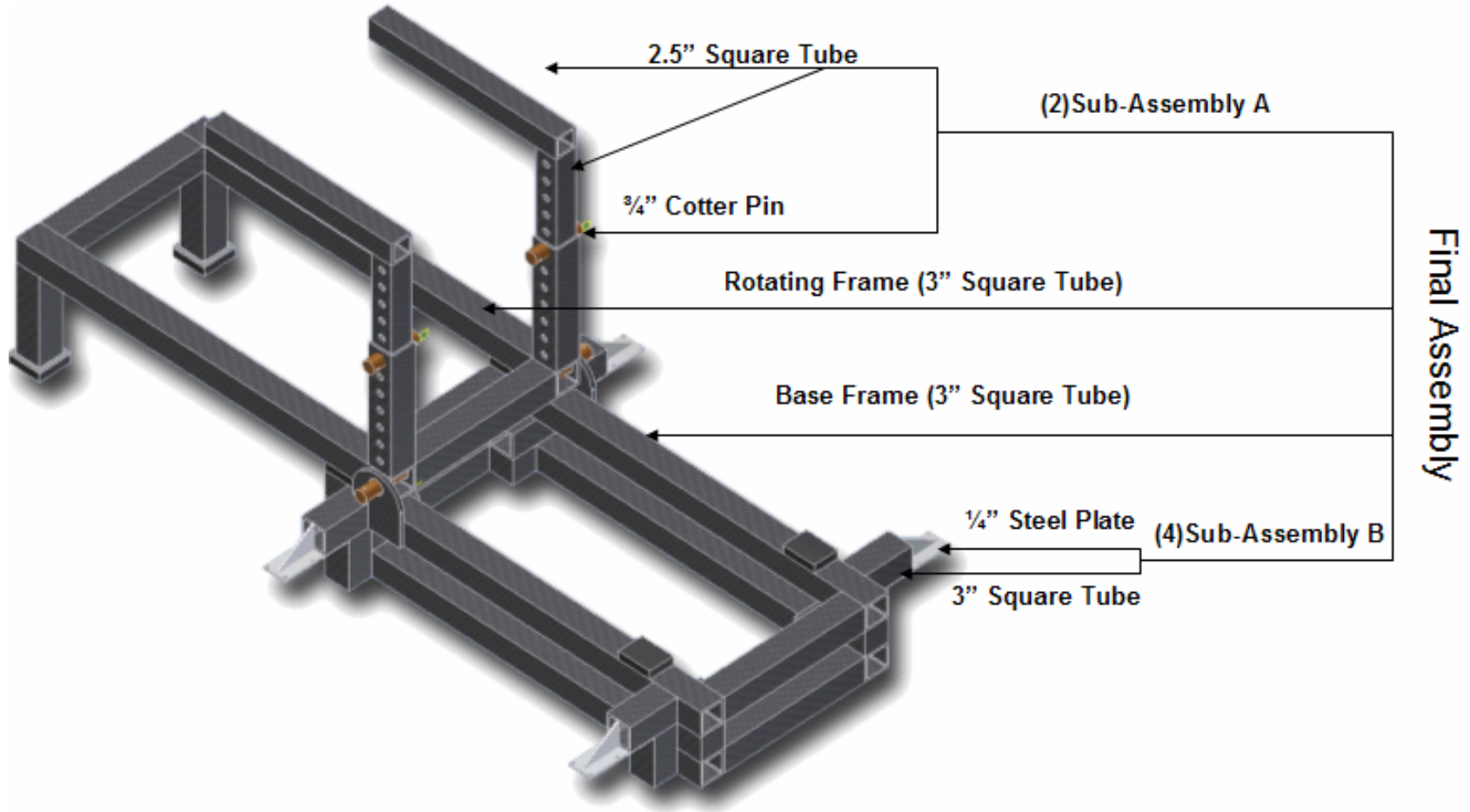
		Gravity Cart		Tilter Cart	
Selection of Criteria	Weight	Rating	Weighted Score	Rating	Weighted Score
Safe to Operate	17%	2	0.34	5	0.85
Adjustable to Material Size	15%	3	0.45	4	0.6
Maintain Product Quality	14%	4	0.56	4	0.56
Strong, Durable and Reliable	14%	2	0.28	5	0.7
Easy to Operate	14%	2	0.28	4	0.56
Easy to Maneuver	13%	2	0.26	3	0.39
Minimum Manual Labor	13%	3	0.39	3	0.39
Total Score		2.56		4.05	
Rank		2		1	
Continue?		No		Yes	

Tilting station

Hydraulic Tilter



Bill of material



Manufacturing and assembly



Testing the final product



Mission accomplished!



OSB Material Placement Crane

Ivan Angulo (team manager)

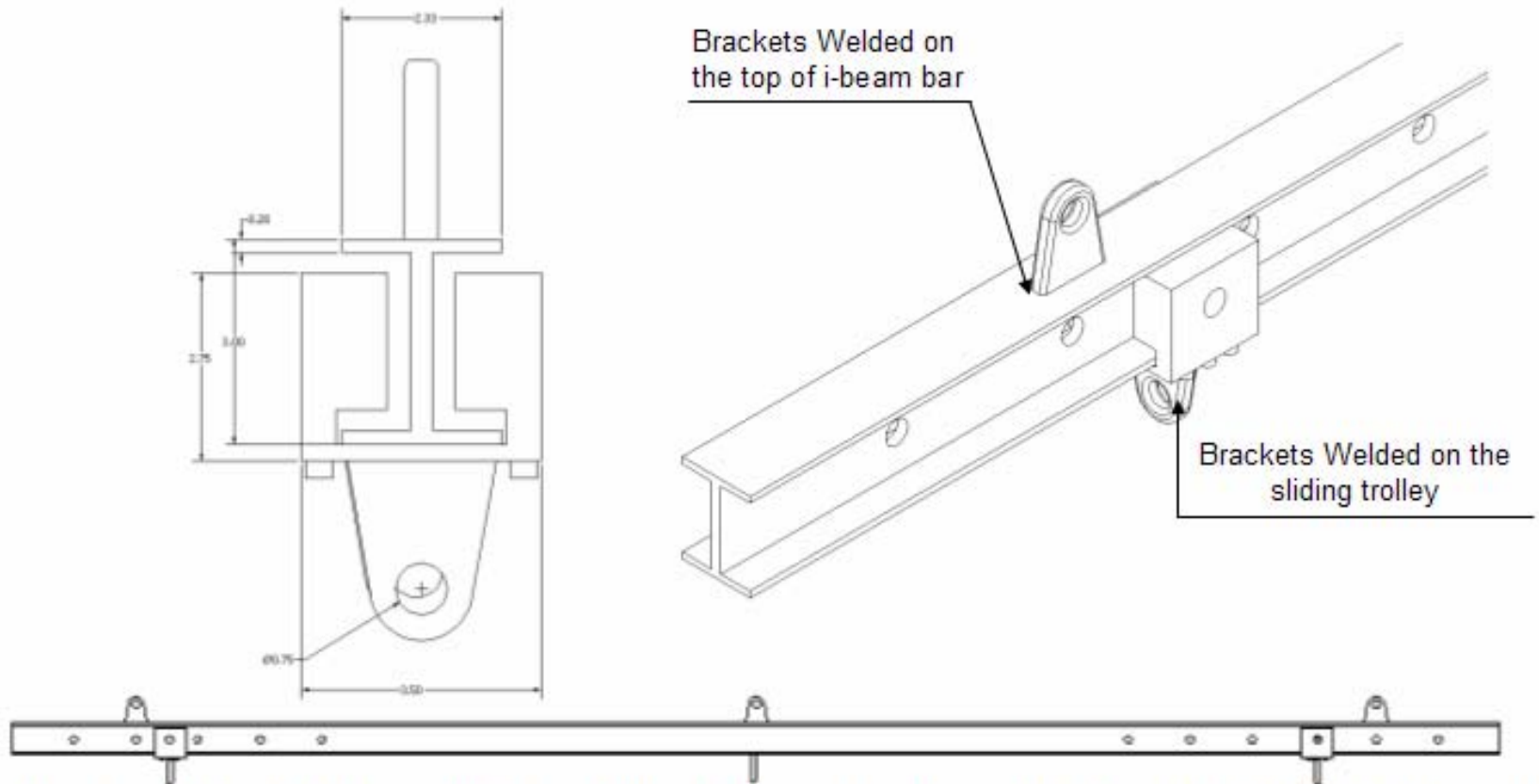
Achraf Al Abiad

Brad Kuschke

Jerry Teeter

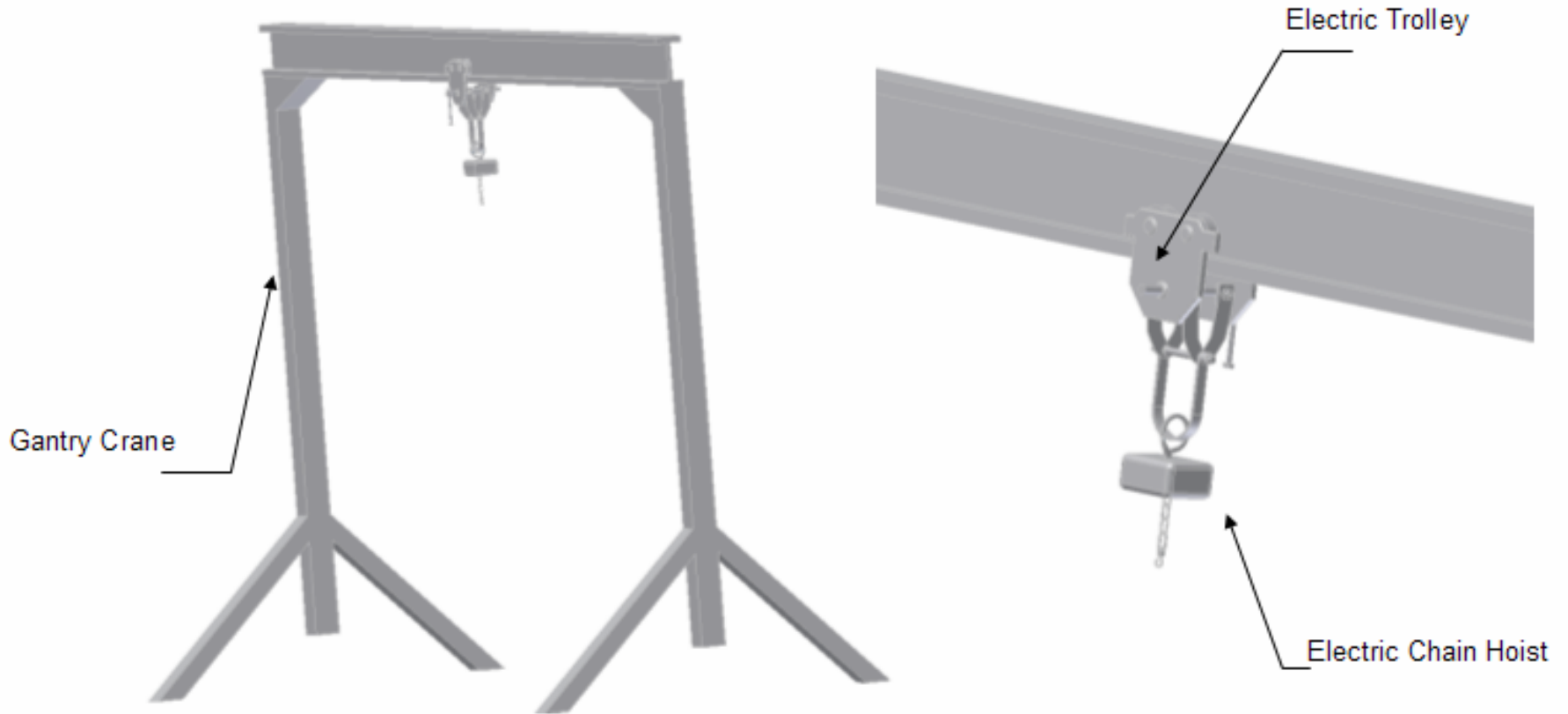


Design



- Assembled Hoist Bar with sliding trolley & Bracket Attachment

BOM



Manufacturing and assembly



Final prototype test



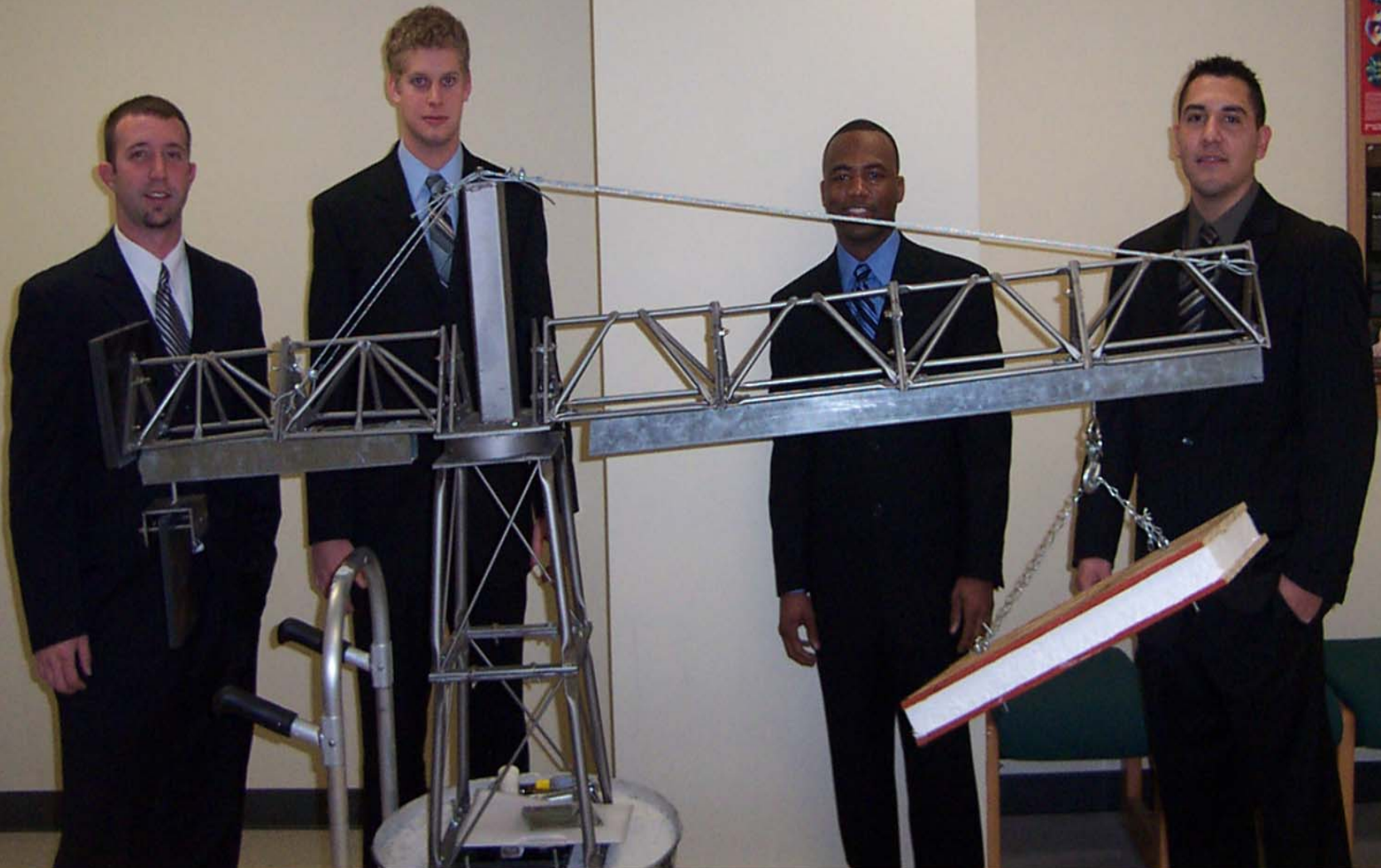
Tim Strickland (team manager)

Gabe Reyna

Aaron Loftin

Randal Prowell

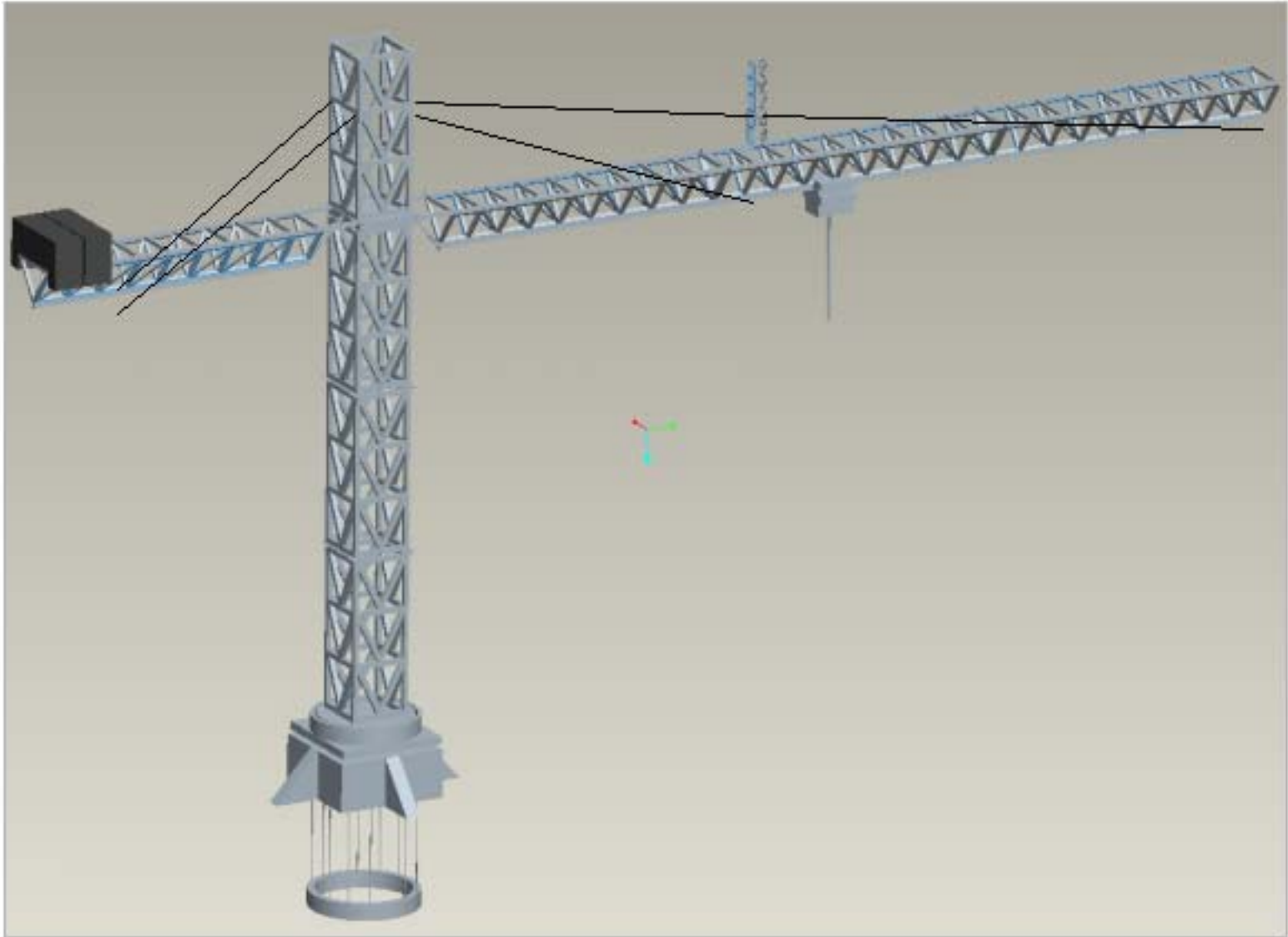
Roof panel crane



Application



Final Design



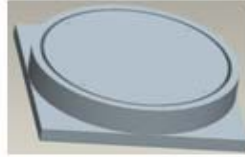
BOM



Disposable Base Ring



Base Plate



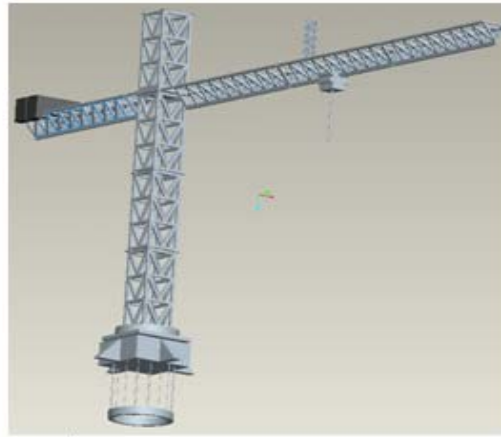
Rotating Base (slewing bearing)



Tower truss



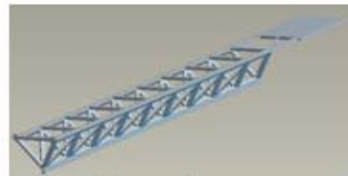
Strutt



Final Crane Assembly



Boom Truss



Boom Connector



Hook



Counterweight

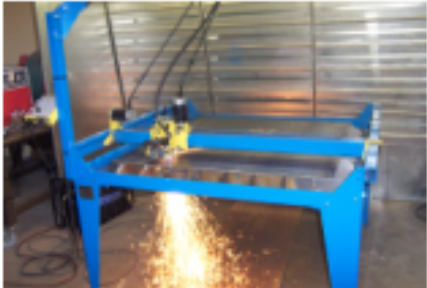


Trolley/winch

Process Routing

Part 1-Cutting & Forming

Raw Material



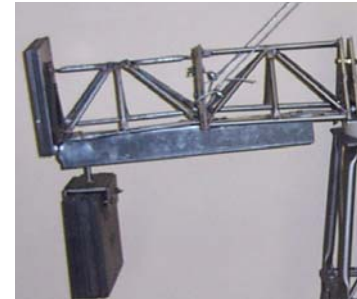
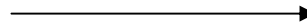
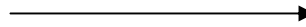
Process Routing

Part 2-Fabrication



Process Routing

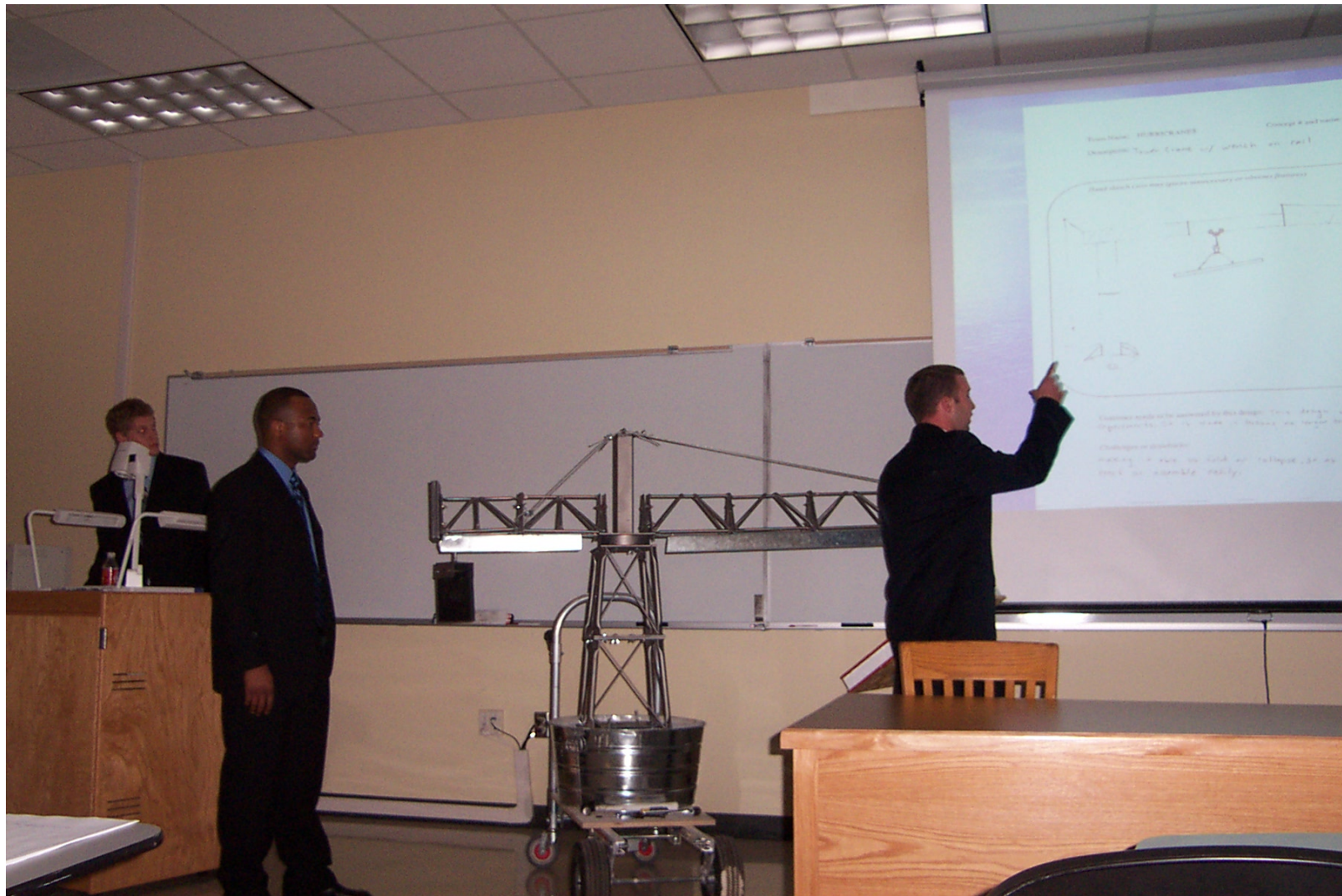
Part 3- Sub-Assembly



Process Routing

Part 4- Assembly





Spline Manufacturing

Nathan Thormeyer

Mike Bautsch

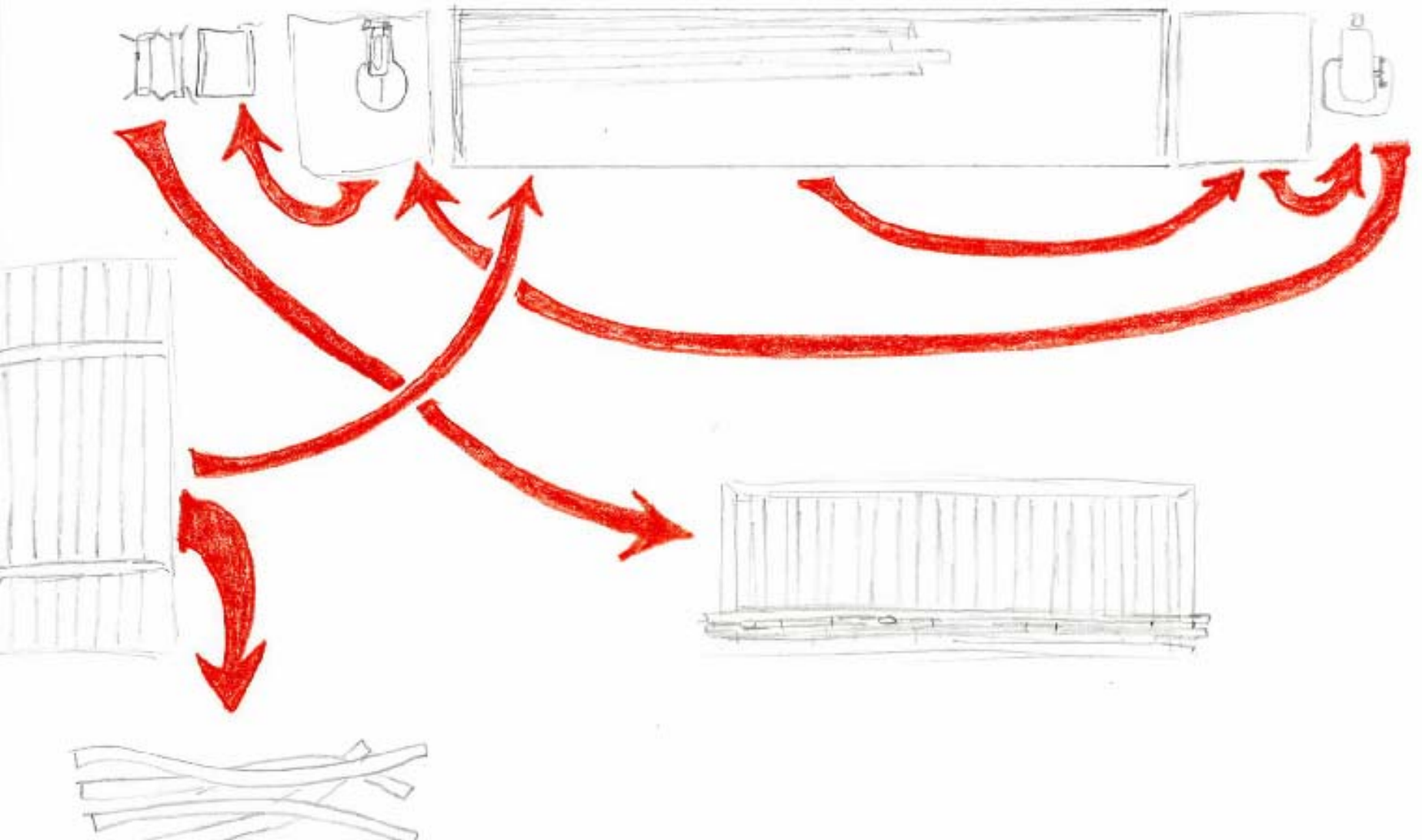
Adam Davidson (team manager)



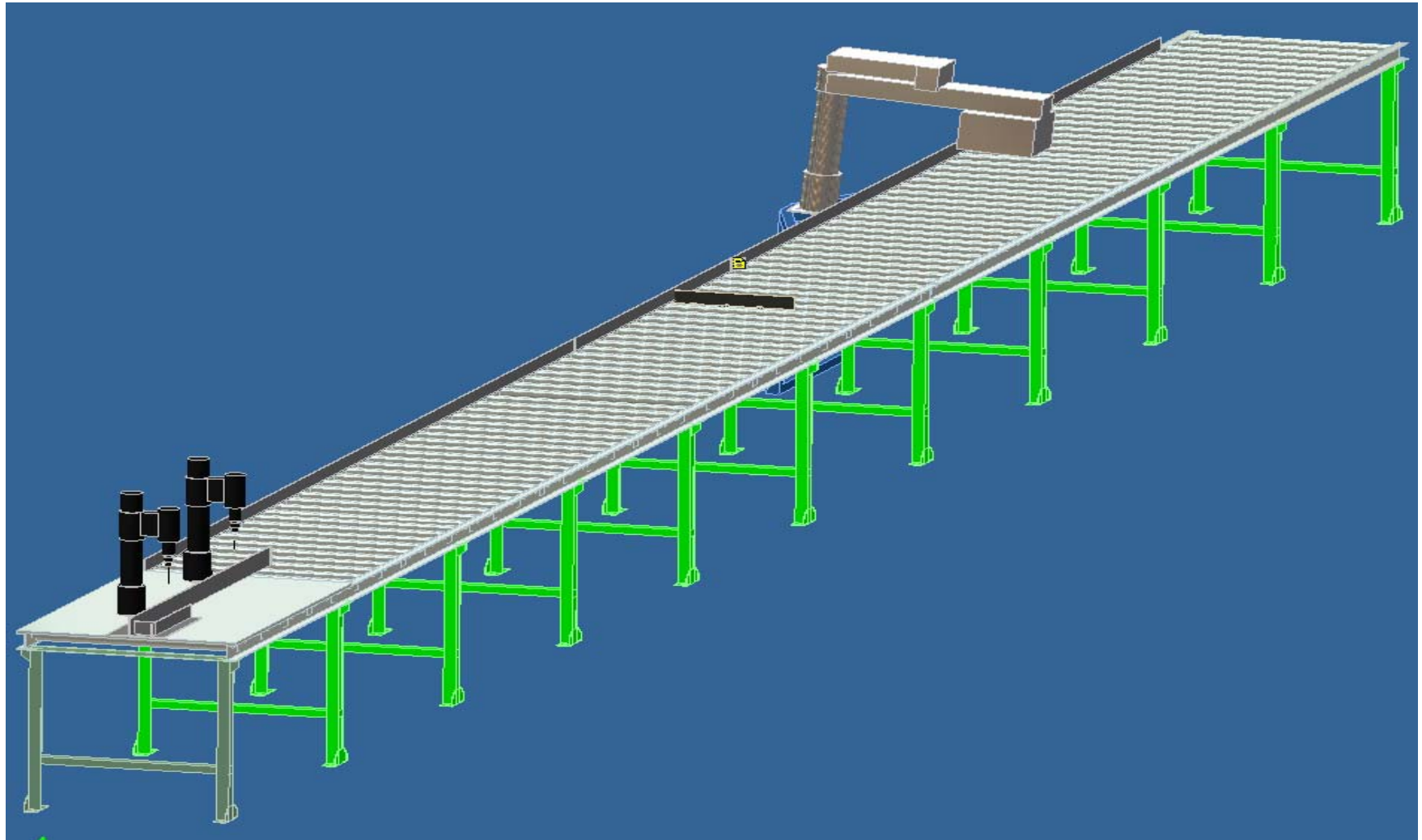
The Current Assembly Process

Project 2: Splines Production

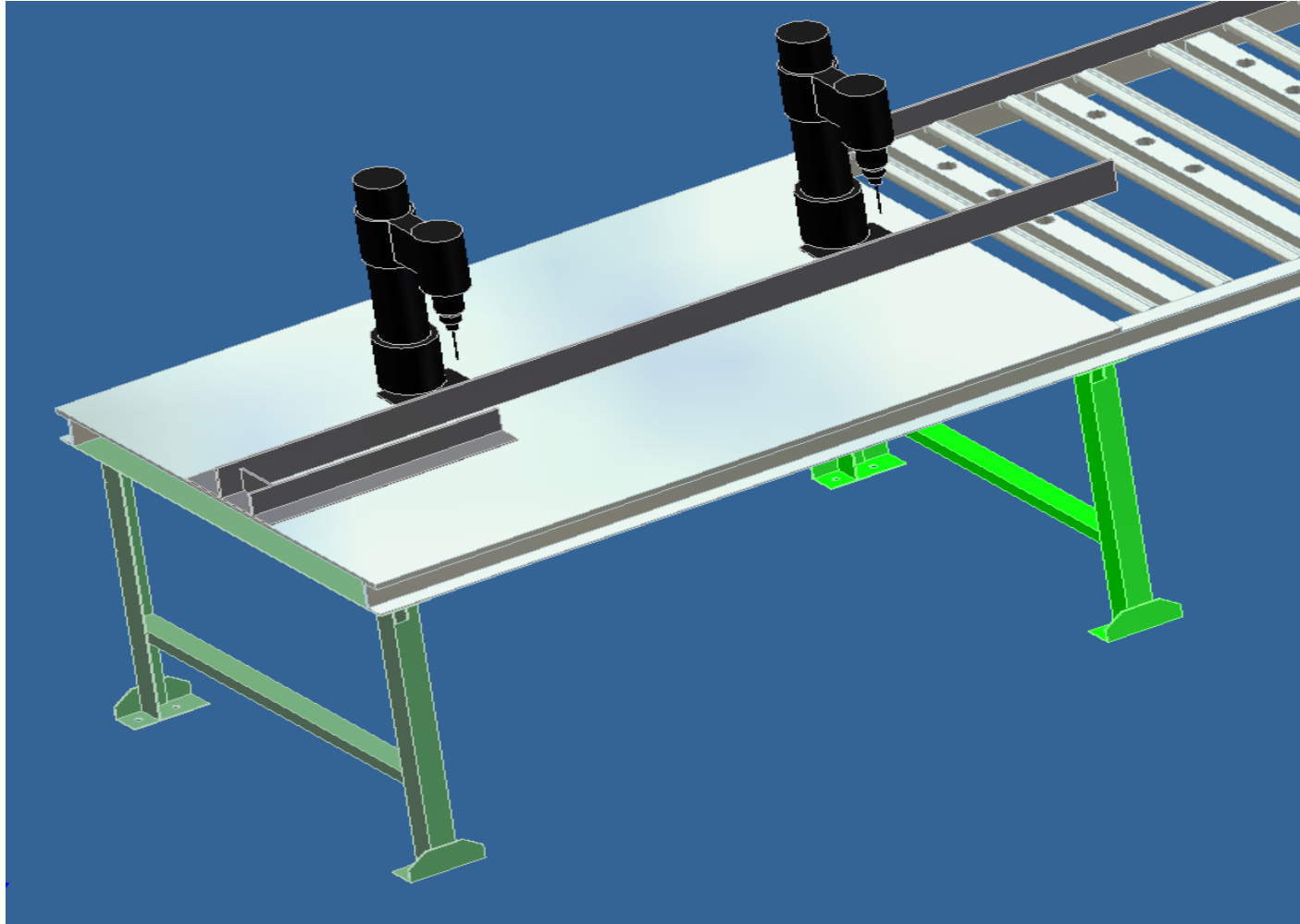
Adam Davidson
Nathan Thornmeyer
Michael Bantsch



Final Design



Final Design



Manufacturing and assembly



Final test



Cleanup time!



Panel of experts



And the best team is...

