TEXAS STATE
INGRAM SCHOOL OF ENGINEERING

I1.02 - HIDden Solutions

Team: Mark Mebane, Adrian Carbajal, Noah Dull

Sponsors: Mark Thelen, Keith Capobianco

HID

Problem Statement

- ❖ Failures in Readers, Credentials, Shipping
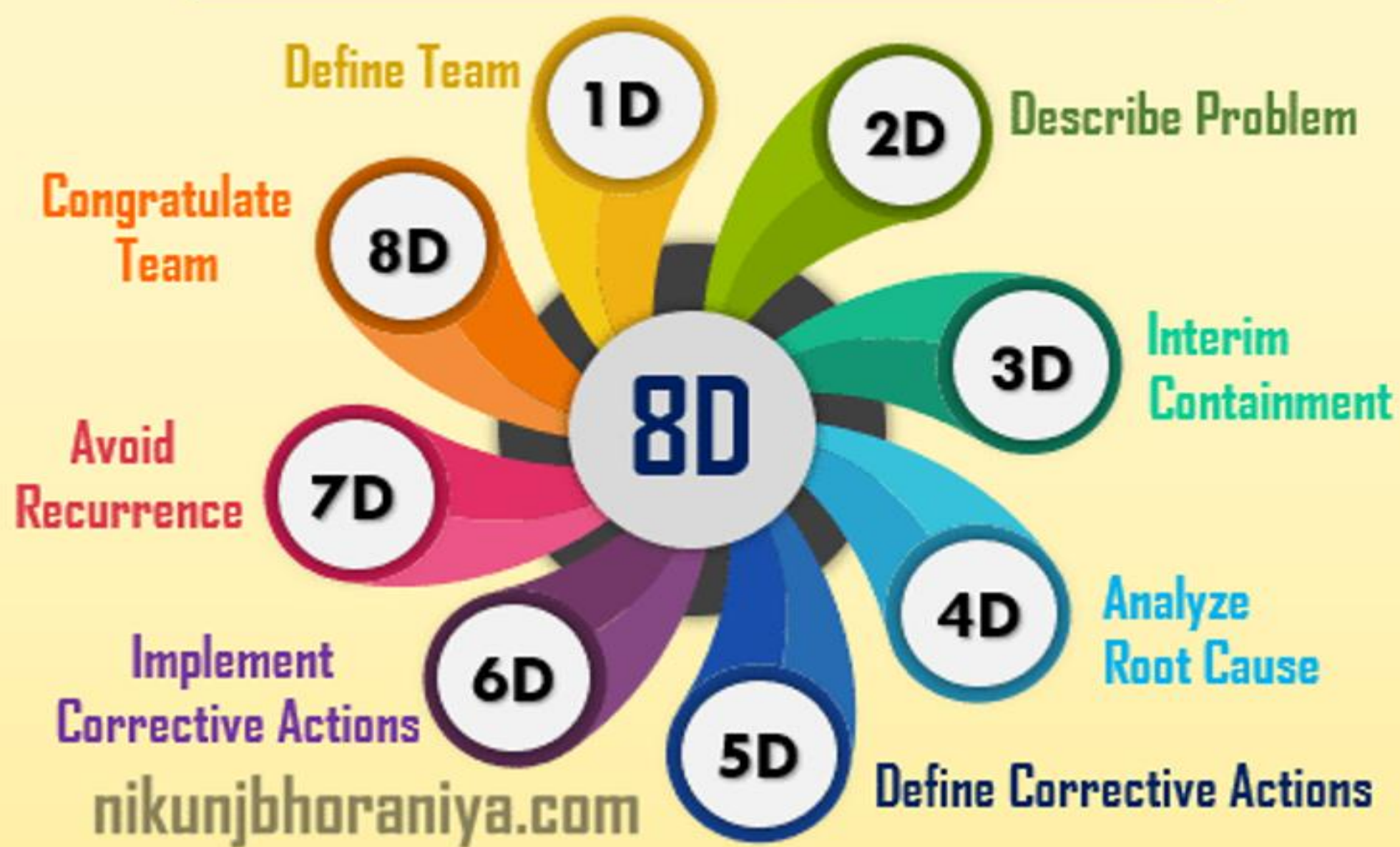- ❖ Inefficient operation, stress, scrap, wasted time, loss of income

Project Purpose

- 🔍 Identify Failures
- 📉 Reduce Defects
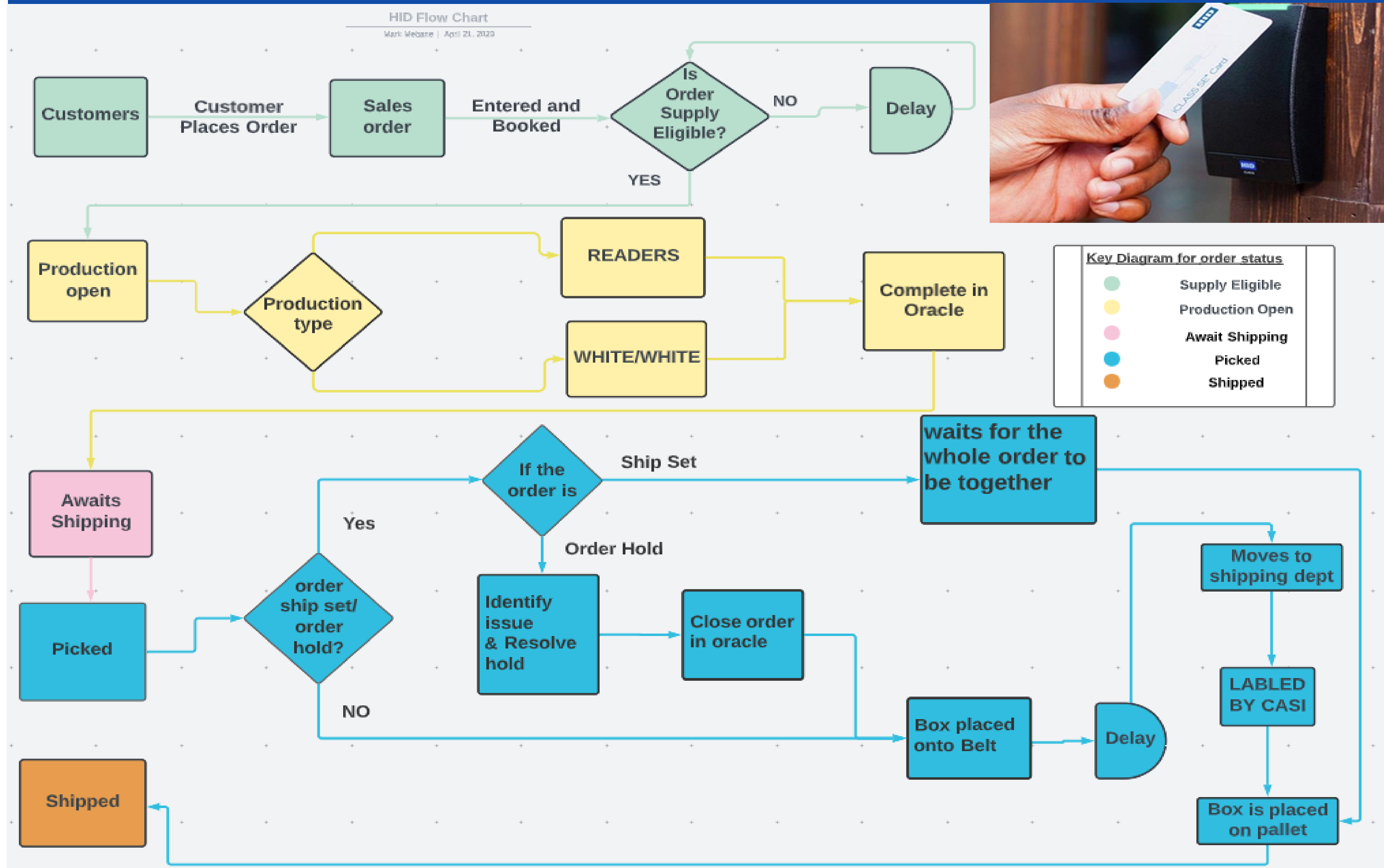- 🏠 Increase Package Traceability
- 🐷 Increase Profits

Deliverables

- ✓ Process Flow Diagram
- ✓ PFMEAs for Readers, Credentials, Shipping
- ✓ Cost-Savings Analysis

Method

8D Problem Solving Methodology

Define Team 1D · Describe Problem 2D · Interim Containment 3D · Analyze Root Cause 4D · Define Corrective Actions 5D · Implement Corrective Actions 6D · Avoid Recurrence 7D · Congratulate Team 8D

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Process Flow Diagram

HID Flow Chart — Mark Mebane | April 21, 2023

Key Diagram for order status:
- Supply Eligible
- Production Open
- Await Shipping
- Picked
- Shipped

Current & Future Progress

Task Name	Duration	Start	Finish
Spring semester			
Statement of Work	30d	01/30/23	03/10/23
Learn Credentials process	61d	02/06/23	05/01/23
Learn Readers process	61d	02/06/23	05/01/23
Learn Shipping process	61d	02/06/23	05/01/23
Process Flow Diagram	55d	02/17/23	05/04/23
IDR	11d	03/27/23	04/10/23
Senior Design day	1d	05/02/23	05/02/23

Task Name	Duration	Start	Finish
Fall Semester			
PFMEA for Readers	60d	08/21/23	11/10/23
PFMEA for Credentials	60d	08/21/23	11/10/23
PFMEA for Shipping	60d	08/21/23	11/10/23
Counter Measures	51d	09/22/23	12/01/23
Cost- Saving Analysis	46d	10/01/23	12/01/23
FDR	23d	11/01/23	12/01/23
Final Report	23d	11/01/23	12/01/23
Senior Design	1d	12/01/23	12/01/23

Human Factors

- ❖ Physical/Mental Stress
- ❖ Identifying failures = First step to reduce stress
- ❖ PFMEA = prevent failures, Optimize process bottlenecks

Team

Left to Right:
Noah (Industrial Engineer), Adrian (Industrial Engineer), Mark (Project Manager)

BRUCE AND GLORIA INGRAM HALL
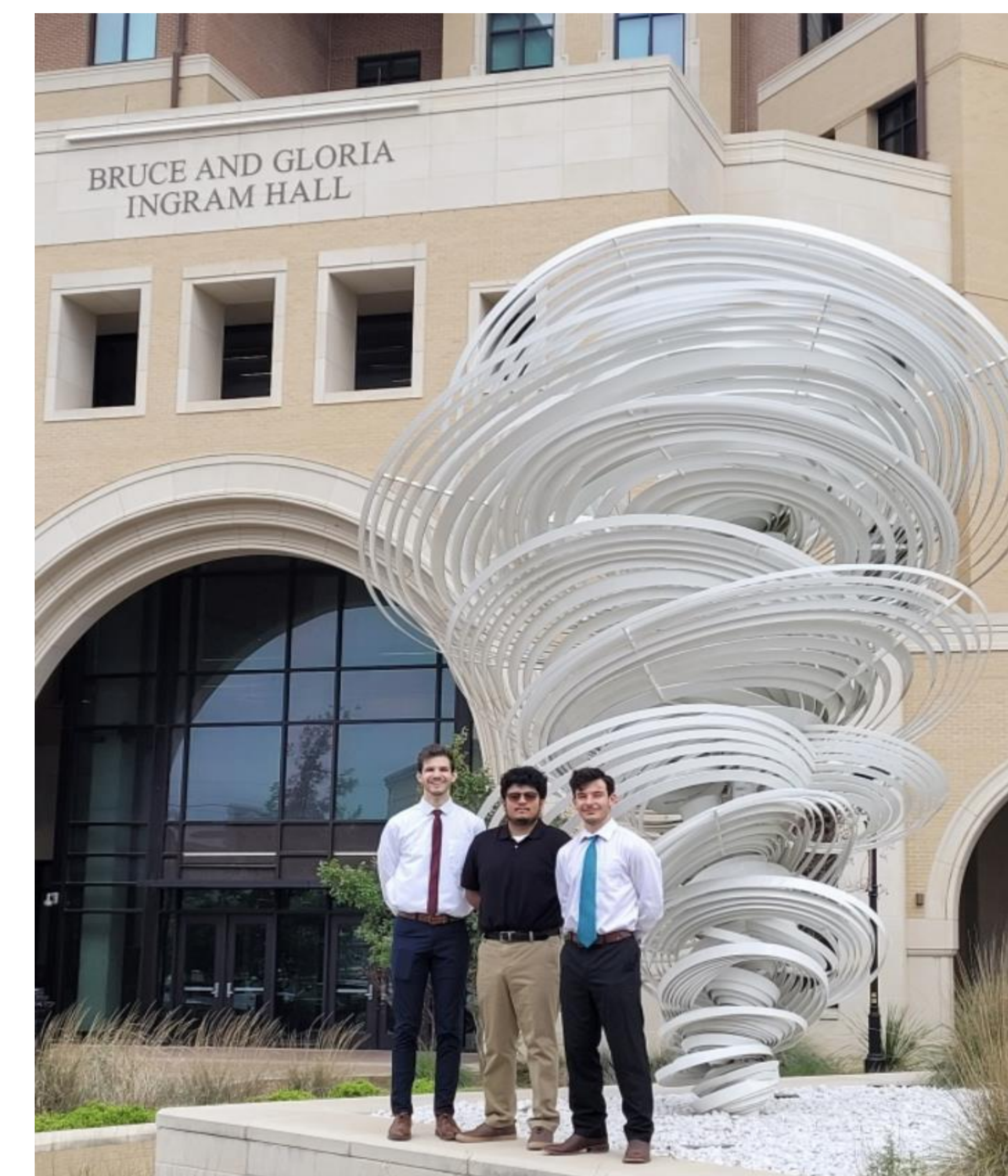
Acknowledgements

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