# SAE Baja Design Mid-point Presentation Team Drivetrain 

Abdulrahman Almuflih, Andrew Perryman,
Caizhi Ming, Zan Zhu, Ruoheng Pan

## Overview

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## Introduction

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-Project Description: Design and build Baja vehicle
-The Baja competition project in NAU:
-Frame design

- Suspension design
-Drive-train design
For drive-train design:
- Our team aims to build the drive-train and assemble it along with the engine so that the Baja vehicle can achieve all of the competition events.



## Parts Order Status

| Ordered Parts | Quantity | Status |
| :---: | :---: | :---: |
| Engine | 1 | Arrived |
| Differential | 1 | Arrived |
| CVT | 1 | Arrived |
| Shaft | 2 | Arrived |
| Key | 4 | Arrived |

## Engine Mount



## Reshape CVT output pulley



Mini Baja geometry


Note: All dimensions are in millimetres (mm)

## Throttle Cable Parts



- Ball Joint
- Cable Stop

- Throttle Cable

- $90^{\circ}$ Elbow


## Throttle Cable Detail

- 96 inches in length
- Runs along the floor board
- Provided by Control Cables Inc.



## Gas Pedal

- Designed for Polaris RZR 900 XP
- Complete throttle and brake cluster
- Selected to fit our throttle cable design specifically
- Unfortunately...



## Shifter Box



## Shifter Cable and Connection



## Drip Pan



CVT Guard


## Project Plan- Spring 2014



## Conclusion

For drive-train design progress:

- Our team has confirmed that all the ordered parts have been received.
- All design process have been completed including CAD drawing and all that left is building or assembling the system.
- Some of the parts received needs to be modified to fit our design.
- We expect to be able to follow the project plan to finish all of the tasks in a timely manner.


## More Pictures



## More Pictures



