

To: Cait Cramer

From: Cory Rhodes, Derrick Elliott, Jeanie Hess

Subject: Progress Report

Date: 17 April 2018

## Abstract

This report is going to explain what we have accomplished during our group project. Our report what we have learned and what changes have been implemented. As a group we have learned many new skills that will explained in detail further into this report. Along with this new-found knowledge, we have made many changes which include a new direction.

Our original project was to create a pneumatic engine as a set of four students. This included create parts in Solidworks. After we were to get this done, we were to print these parts with the 3D printer. As of Monday, April 16, our project has gone in a different direction with just three members moving forward. We have taken our project to the robotics lab y taking on the task of repair a robot originally created by previous Ivy Tech students. This robot was created with the task of launching a basketball for various events. During one of these events there was some damage to the robot. Our new task is to figure out why this robot is not running correctly and what we can do to improve it.

## Tasks Completed

### Pneumatic vehicle

- Each of our team members have created three full parts each in Solidworks. This was for the pneumatic vehicle.
- We have experienced reverse engineering on objects that did not have dimensions, which included manipulating dimensions to change size.
- During our time as a group of four, we have learned communication skills within conflict. This also exposed us to conflict resolution

### Ivy Tech Robot

- Inspected fully assembled robot as a group. During this we realized that there was no functioning controller.
- Cory tested the Ivy Tech robot batteries to ensure they were operating properly after charging.
- We have completed research on the Vex products that this robot operates and is partially made up of, mostly of the chassis.
- We have also learned how to use resources that are available and being able to talk to people that may be useful in future project, this includes: Andrew Bell and Bob from robotics.

## Tasks Incomplete

- The controller for the robot should need to be synced properly to the robot brain, which may require additional research.
- This robot may require reprogramming which will be done in a program called RobotC

## Conclusion

We have gained additional skills during the process of this project. We have used the problem-solving steps in several different ways. Our new project has a good direction and we have an idea of what needs to be done to move forward and possibly improve this Ivy Tech robot as a group of three we have been able to communicate efficiently.