

# The Pioneers Engineering Notebook

Team 6121C

VEX Turning Point (2018-19)

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## **1    Introductory Information**

## **1.1    Preface**

This notebook is the story of team 6121C throughout the VEX 2018-19 season, Turning Point. It is designed to be an organized description of our design, build, and programming processes.

## **1.2    Use of Git Version Control**

Our use of Git has helped us keep track of our files. Everything electronic we do (code, CAD, etc.) is tracked using Git version control to keep track of the iterations those files have gone through.

### 1.3   Use of L<sup>A</sup>T<sub>E</sub>X

This year, we decided to use L<sup>A</sup>T<sub>E</sub>X to make our notebook. This helps us have a cleaner notebook and use Git version control with it as well. L<sup>A</sup>T<sub>E</sub>X is a typesetting system designed for technical and scientific documentation. We feel that using L<sup>A</sup>T<sub>E</sub>X helped us be more efficient in documenting our team.

## 1.4 About the Team

### 1.4.1 History of 6121C

Team 6121C The Pioneers planted their seeds during the VRC 2016-17 season, Starstruck. Head by veteran roboteer Neil Muglurmath, they ranked 6th and earned the Tournament Semifinalist award in their first regional competition of the season, qualifying them for the state qualifier. At the Eastern PA State Championship, they were semifinalists in their division and won the Build Award.

The team stepped up their game in the VRC 2017-18 season, In The Zone. The team was comprised of one member, Neil Muglurmath, for a large part of the season. In his first tournament of the season, he recieved the Tournament Semifinalist award. After a rebuild, he acquired both Tournament Champion and Excellence awards in his second regional competition of the season. After improving upon his second iteration, he obtained the Excellence Award once again, along with being a Tournament Semifinalist. By now, 6121C had qualified for the CREATE U.S. Open Robotics Championship, which consists of 200 VRC teams around the country, but unfortunately there was no more space to compete. After a rebuild for the Eastern PA State Championship, the team took home the Tournament Champion Award, qualifying them for the VEX Robotics World Championship in Louisville, Kentucky. Here, they ended with a record of 5-5 and 44th in the Research Division.

## **1.5 Team Biographies**

### **1.5.1 Neil Muglurmath**