

FIRST Robotics Challenge (FRC) 2016

Team 3035 Droid Rage

Collegiate High School
Corpus Christi, TX



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Mission, Vision, Summary

Collegiate High School
Corpus Christi, TX



Team Mission

The Collegiate High School Robotics Organization aims to work diligently but with lots of fun! Droid Rage aims to inspire and motivate student learning in STEM beyond the classroom through positive and purposeful enrichment. Droid Rage seeks to develop partnerships between veteran and rookie team members that foster ideals in growth and advancement of the organization locally and beyond.

Team Vision

The Collegiate High School Robotics Organization holds these truths to be sufficient and true of its membership and leadership: (1) success is awareness of ability; (2) success is bestowing belief; (3) success is contribution of creativity; (4) success is demonstration of diversity; (5) success is efficient use of effort; and, (6) success is forging a future.

Team Summary

Participation in the *FIRST Robotics* Challenge (FRC) has been a great opportunity for Collegiate High School. Our students have experienced scholastic achievement through networking, professionalism, and scholarly works as an outcome of competing and meeting challenge requirements of FRC. Through application of their acquired skills, knowledge, and advancement in their studies, our students have gained a wealth of tools and support in Science, Technology, Engineering, and Mathematics (STEM) alike. The FRC challenge provides our students and faculty a unique learning experience to be able to coach and mentor our students in incorporating skills acquired in the classroom. Authenticity, purposeful, and relevant application of classroom skills span growth experiences in computer science, electrical and civil engineering, graphical and architectural design, business principles in accounting, marketing, advertising, and event planning, and management science.

In a traditional sense a students' classroom experience in STEM courses rarely integrates cross-disciplines and career emphasis learning. In an effort to meet increased expectations in exposing our students to career experiences as well as build awareness of the numerous opportunities in STEM, the FRC challenge enhances student learning through real-world application. Robotics has provided our students the opportunity to explore all dimensions to discover their interests and attain the necessary skills stimulated by creativity and critical thinking. Although the Royal faculty work diligently in ensuring lessons are highly engaging and relevant to the students' future goals, FRC provides the outlet for direct application and purpose to the madness that is skills, rules, laws, and properties in STEM. FRC continuously provides rich opportunities for our students to gain real-world experiences; this is Collegiate High School' tenth year in the competition.

In closing, FRC presents the perfect gateway for our students to succeed in the fields of STEM and as an Early College High School; FRC supports the criteria in which our school was founded on—success for all students!

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Advisors and Mentors

Collegiate High School
Corpus Christi, TX



Advisor and Mentor – Management and Marketing, Ms. Sandy Riggs (2006 – Present)

As Collegiate High School's Biology Teacher, Riggs strives on the Robotics team as the lead mentor for the business aspects of the Robotics Organization. Riggs single handedly took on the role of Marketing and Advertising Coordinator to mentor the students in proper etiquette in gracious professionalism. Riggs has contributed her financial expertise in ensuring that Team 3035 Droid Rage participates in the FRC challenge annually. Riggs' favorite quote is *life is way too short to skip a beat. – unknown.*

Advisor and Mentor – Engineering and Programming, Mr. Paul Rodriguez (2011 – Present)

As Collegiate High School's Geometry Teacher, Rodriguez strives on the Robotics team as the lead mentor for the design, planning, and implementation of the construction aspect of the Robotics Organization. Rodriguez contributes as an advisor supporting with resources to aide the engineering and programing aspect of Team 3035. Quality control is gained by consistent monitoring of logs and work completed on a daily basis. Rodriguez's favorite quote is *the brave may not live forever but the cautious do not live at all – unknown.*

Mentor, John Hanlon

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Engineering Department

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Engineer, Isabella Gutierrez

2015 – Present

Sophomore

Roles on FRC Team 3035 – *Designer, Builder, and Construction of Robot*

Aspiring Career – *Medicine or Biomedical Engineer*

College(s) of Interest – *Notre Dame University; Johns Hopkins University; Texas A&M University-College Station; Baylor University*

Major Interest – *STEM*

Favorite Quote – *Do not let anyone look down on you because you are young, but set an example for the believers in speech, life, love, and purity. – Timothy 4:12*

Advice about being in Robotics – *Keep an open mind, be innovative, do not be afraid to think outside of the box, collaborate often, and just have fun.*

Engineer, Daniel Hernandez

2015 – Present

Freshman

Roles on FRC Team 3035 – *Photographer for Engineering Notebook and Construction of Robot*

Aspiring Career – *Pediatrician*

College(s) of Interest – *Texas A&M University-Corpus Christi; Texas Tech Health and Sciences at El Paso;*

Major Interest – *Pre-Med*

Favorite Quote – *The best can't find you until you put the worse behind you - unknown*

Advice about being in Robotics – *It takes a lot of time and effort if you want to win; give it 110%!*

Engineer, Cristian Toren

2013 – Present

Junior

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

Engineer, Jorge Valdez

2015 – Present

Freshman

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

Engineer, Isaac Vasquez

2015 – Present

Freshman

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

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Programming Department

Collegiate High School
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Programmer, Clarissa Juarez

2014 – Present

Sophomore

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

Programmer, Ricky Tiet

2015 – Present

Sophomore

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

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Safety Department

Collegiate High School
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Safety – Coordinator, Dylan Lozano

2015 – Present

Freshman

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

Safety – Capitan, Noah Cantu

2015 – Present

Freshman

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

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Marketing Department

Collegiate High School
Corpus Christi, TX



Marketing – Social Media, Hector Piris

2014 – Present

Sophomore

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

Marketing – Spirit, Imelda Gallegos

2015 – Present

Sophomore

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

Marketing, Jonathan Martinez

2014 – Present

Sophomore

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

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Management Department

Collegiate High School
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Management – Coordinator, Catherine Graves

2013 – Present

Junior

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

Management – Capitan, Brittney Ortega

2015 – Present

Junior

Roles on FRC Team 3035 –

Aspiring Career –

College(s) of Interest –

Major Interest –

Favorite Quote –

Advice about being in Robotics –

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Safety Program

Collegiate High School
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Safety Agreement

By signing this document, we as Team 3035, agree to abide by all safety protocols expressed in the Safety Rules for FIRST Robotics Challenge Competition when building our robot and competing in competition. We have reviewed the rules and trained our members in safety procedures. We have a Safety Coordinator and Captain that monitors safety protocols; this dual consists of a veteran member and a new member being trained to replace the veteran member in a cycle that repeats every year.

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Design and Engineering

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Mechanical Operations

Electrical Construction

Programming and Software

Description of Final Design

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Business Plan

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Business Plan

Financial Resources

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Community Outreach

Collegiate High School
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Community Outreach

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Communications

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Corpus Christi, TX



Collegiate High SchoolTeam 3035Droid Rage

Team Website