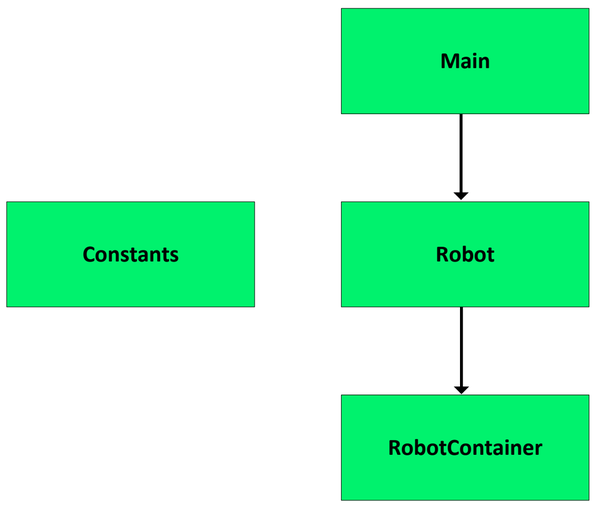
Basic Robot Structure



Main.java

This file is the starting point for the entire program and calls the Robot class to start building the robot. Don't have to touch this file.

Robot.java

This file defines the Robot class and its purpose is to maintain the overall state of the robot. It is implemented as a State Machine that represents the state of the robot at various points in time.
Initialize the robot structure. Starts the command scheduler.
CommandScheduler

- It is singleton
- It polls the triggers for commands to schedule, preventing resource conflicts, and executing scheduled commands.
- It is generally recommended to call it from the robotPeriodic() method of the Robot class
- Handles autonomous and periodic loops

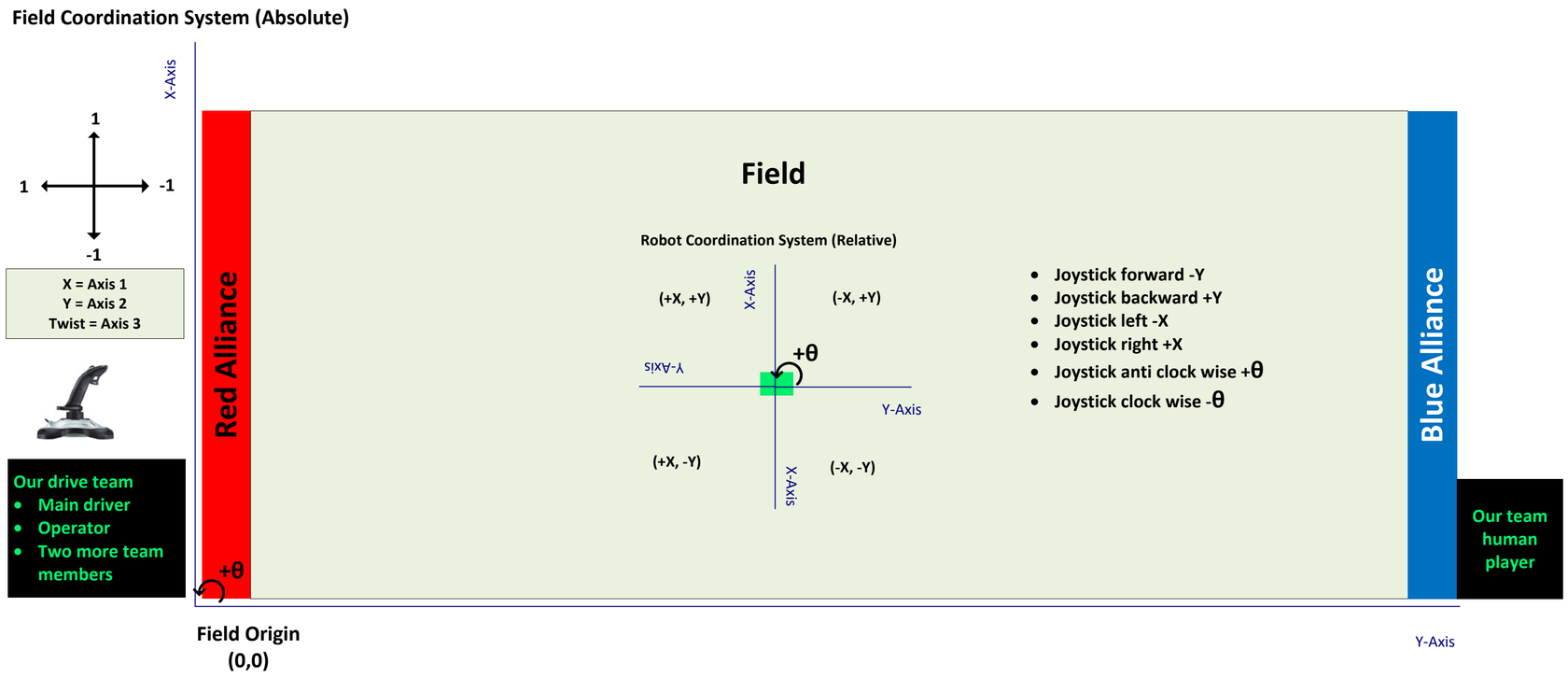
RobotContainer.java

The main structure of the robot is built in this file.
It defines Subsystems and their Default Commands.
It sets up Autonomous Commands that are run during the Autonomous mode of the competition.
It is also where mappings between the Joystick and various Commands are defined.

Constants.java

This file provides a central location for defining constants. Constants are values assigned to variables that do not change throughout the execution of the program

Robot is in red alliance



- The **field coordinate system** (or **global coordinate system**) is an absolute coordinate system where a point on the field is designated as the origin. Positive **θ** (theta) is in the counter-clockwise direction, and the positive x-axis points away from your alliance's driver station wall, and the positive y-axis is perpendicular and to the left of the positive x-axis.
- The **robot coordinate system** (or **local coordinate system**) is a relative coordinate system where the robot is the origin. The direction the robot is facing is the positive x axis, and the positive y axis is perpendicular, to the left of the robot. Positive
- is counter-clockwise.
- Your robot is in red alliance.
- Joystick forward -Y
  It moves robot away from Main driver. It should drive the robot BACKWARDS. To make the robot forward we need to invert the joystick control.
- Joystick backward +Y
  It moves robot towards Main driver. It should drive the robot FORWARDS. To make the robot backward we need to invert the joystick control.
- Joystick left -X
  It drives the robot main driver's right. To make the robot turn the main driver's left we need to invert the joystick control.
- Joystick right +X
  It drives the robot main driver's left. To make the robot turn the main driver's right we need to invert the joystick control.

Robot is in blue alliance