**Auton Red Boiler Side Hopper ONLY:**

1.) Align bot centered on the tape marking the Key with the front of the bot facing away from Driver Station (Red 1)

2.) Drive forward 101 inches.

3.) Drive right side forward for 3 inches (to catch the fuel from the hopper) while running intake to collect fuel on the ground \*At this point, the bot should be parallel to the field wall\*

5.) Drive backwards for (at least) 76 inches.

6.) Drive left side backwards until squared up to the boiler (approx. 23 inches)

7.) Shoot (Use Lidar to adjust RPM?)

**Auton Blue Boiler Side Hopper ONLY:**

1.) Align bot centered on the tape marking the Key with the front of the bot facing away from Driver Station (Blue 1)

2.) Drive forward 101 inches.

3.) Drive left side forward for 3 inches (to catch the fuel from the hopper) while running intake to collect fuel on the ground \*At this point, the bot should be parallel to the field wall\*

5.) Drive backwards for (at least) 76 inches.

6.) Drive right side backwards until squared up to the boiler (approx. 23 inches)

7.) Shoot (Use Lidar to adjust RPM?)

**Auton Blue Feeder Side Hopper + Gear:**

1.) Line Bot up with edge of the Red Feeder Station and the front of the bot facing the Driver Station wall (Blue 3)

2.) Drive backward 49 inches

3.) Rotate 120 degrees counterclockwise

4.) Drice backward 87 inches to lift

5.) Pause for Pilot to remove gear

6.) Drive forward counter clockwise in a 61.3 inch radius arc for 151.3 inches

7.) Drive forward 18 inches

8.) Drive left side forward for 2 inches

9.) Pause to collect fuel from hopper while running intake to collect from ground

10.) With intake still running, drive forward in a 143. 863 inch counter clockwise arc for 401.2 inches

11.) Drive forward 131.5 inches to boiler

12.) Shoot

**Auton Blue Feeder Side Hopper ONLY:**

1.) Align bot centered on the tape marking the Red Retrieval Zone with the front of the bot facing away from Driver Station (Blue 3)

2.) Drive forward 126.2 inches.

3.) Drive right side forward 17.25 inches to line up parallel to hopper

4.) Drive forward 74 inches.

5.) Drive left side forward 2 inches to hit hopper

6.) Pause to wait for hopper and run intake to collect fuel from ground

7.) With intake still running, drive forward counter clockwise in a 143.863 inch radius arc for 401.2 inches

8.) Drive forward 131.5 inches to boiler

9.) Shoot

**Auton Boiler Red Side Hopper + Gear:**

1.) Start facing the Drivers Station with left corner to the Boiler corner (Red 1)

2.) Drive backwards on a clockwise arc of 109 inch Radius for 122.5 inches

3.) Pause for Pilot to remove gear

4.) Drive forward counter clockwise at an arc of 115.5 inch radius for 121 inches

5.) Start shooting

6.) Wait for hopper

7.) Drive backwards 98 inches while shooting

**Auton Red Feeder Side Hopper + Gear:**

1.) Line Bot up with edge of the Blue Feeder Station and the front of the bot facing the Driver Station wall (Red 3)

2.) Drive backward 49 inches

3.) Rotate 120 degrees clockwise

4.) Drice backward 87 inches to lift

5.) Pause for Pilot to remove gear

6.) Drive forward clockwise in a 60.7 inch radius arc for 150 inches

7.) Drive forward 18 inches

8.) Drive right side forward for 2 inches

9.) Pause to collect fuel from hopper while running intake to collect from ground

10.) With intake still running, drive forward in a 143.5 inch counter clockwise arc for 402.4 inches

11.) Drive forward 130 inches to boiler

12.) Shoot

**Auton Red Feeder Side Hopper ONLY:**

1.) Align bot centered on the tape marking the Blue Retrieval Zone with the front of the bot facing away from Driver Station (Red 3)

2.) Drive forward 120.69 inches

3.) Turn 26.5 degrees clockwise

4.) Drive forward 88 inches

5.) Drive right side forward 2 inches to hit hopper

6.) Pause to wait for hopper and run intake to collect fuel from ground

7.) With intake still running, drive forward clockwise in a 143.5 inch radius arc for 402.4 inches

8.) Drive forward 131.5 inches to boiler

9.) Shoot