The following approaches are possible strategies to consider during the autonomous period, their benefits, and their problems.

Approach 1

If the robot starts on the right side of the field, it will head for the right neutral mobile goal and pick it up. Then, it will return to its starting position.

This approach would allow us to obtain a neutral mobile goal. However, our drivetrain has a gear ratio optimized for high torque and low speed. We would have less of a chance to obtain the right neutral mobile goal before the other team.

[Insert sketch]

Approach 2

If the robot starts on the right side of the field, it will head for the right neutral mobile goal and pick it up. Then it will reverse and pick up the alliance mobile goal on the AWP line. While doing so, it will drop a single donut into the alliance mobile goal.

This approach would allow us to obtain a neutral mobile goal and an alliance mobile goal. Since the robot will be carrying these mobile goals, we will be able to start the driver-controlled period with two mobile goals in our possession. These are two mobile goals that the enemy team will not have access to.

Having two mobile goals in our alliance home zone will give us a better chance of getting the most points at the end of the autonomous period. Therefore, we would get the autonomous bonus.

Since we removed our alliance mobile goal and placed a ring on it, we would have a better chance of getting an autonomous win point. However, our other team on the alliance would still have to place a donut on the other alliance mobile goal. Obtaining autonomous win points would allow us to rank higher in the competition.

However, since our robot has a drivetrain with a gear ratio optimized for high torque and slow speed, we have less of a chance of reaching the right neutral mobile goal before the other team would.

Also, if we were to approach the right neutral mobile goal, but our path was obstructed or interfered with by the other robot, then the rest of the approach would be offset..

[Insert sketch]

Approach 3

[Start on the right, pick up the right neutral mobile goal, pick up the right alliance mobile goal on the AWP line, and drop the mobile goals on the platform]

[Insert sketch]

Approach 4

[Start on the right, pick up the right neutral mobile goal, pick up the right alliance mobile goal on the AWP line, and balance on the platform]

[Insert sketch]

Approach 5

[Start on the left, pick up the left alliance mobile goal, and drop a ring]

[Insert sketch]

Approach 6

[Start on the left, pick up the left neutral mobile goal, pick up the left alliance mobile goal, and drop a ring]

[Insert sketch]

Approach 7

[Start on the left, pick up the left neutral mobile goal, pick up the left alliance mobile goal, drop a ring, and balance on the platform]

[Insert sketch]