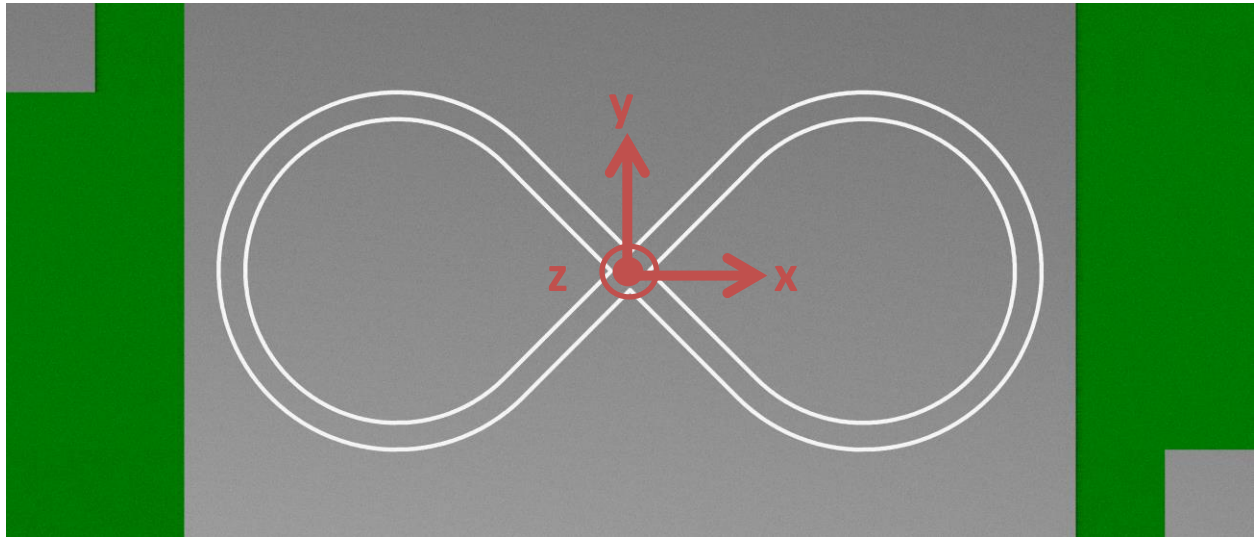


For our gazebo inertial coordinates, the origin is at the very center of the field with x pointing toward the center of the right loop, z pointing up, and the y axis equal to the z axis crossed with the x axis. This makes an orthogonal right handed Cartesian coordinate system.



The frame we measure target position in has its origin as the center of the vehicle. the x axis points forward for the vehicle, y points to the left of the vehicle, and z finishes the right handed coordinate system (points up for the vehicle).