

## Reflection

---

The code responsible for path generation can be found on lines 395 to 502 of main.cpp.

It uses a spline method to generate a smooth path, that goes through predefined waypoints. The spline code is included as a header file named "spline.h".

The first two points are selected from the previous path, to help making smoother transitions. Then, 3 new points are set 30m apart, beginning at the previous trajectory end position.

The spacing affects how the spline adjusts to the track geometry.

After calling the spline function, the final waypoints are generated for the final path that the car will follow.

A rotation is applied to the initial waypoints, in order to make the mathematical treatment more manageable. The reverse process is then applied to the final trajectory waypoints.