TODO: Clean up \_\_init()\_\_ so it's not as much a wall of code.

# 1 class ArcLineArc

### 1.1 start

Vec3. The starting point for the path.

## 1.2 end

Vec3. The ending point for the path.

## 1.3 start\_tangent

Nonzero Vec3. The tangent to the path at start.

#### 1.4 transition1

Vec3. The location of the transition from the first line segment to the arc.

### 1.5 radius

Float. The signed radius of the arc. Positive for CW, negative for CCW.

### 1.6 current\_state

TODO: Add this argument or follow\_path won't work. CarState. The current state of our car, probably from game\_info.me.

### 1.7 self.center

Vec3. The location of the center of the circle containing the arc.

## 1.8 self.end\_tangent

Vec3. The tangent vector to the path at end.

### 1.9 self.transition1

Vec3. The location of the transition from the arc to the second line segment.

## 1.10 self.is\_valid

Boolean. True when the LineArcLine is valid, using conditions added as seen fit. TODO: Add checks that we don't leave the floor of the stadium.

## 1.11 self.find\_lengths()

Returns three floats: The length of the first line segment, the length of the arc, and the length of the second line segment.

## 1.12 self.draw\_path()

Uses the RLBot renderer to draw the LineArcLine path on screen. Disable for tournament versions.

## 1.13 self.check\_validity()

Returns a boolean, True when the LineArcLine is valid. Currently always returns True. TODO: implement actual checks.