

Project 4 (Individual) Deliverables

The race track is no longer horizontally flat! The height of the track increases on the start straight segment from 0m to 10m based on a smooth curve as specified below, and on the return straight segment returns from 10m to 0m using the same curve.

$$\text{Height}(x) = \exp((x-450)/50) / (1 + \exp((x-450)/50)) * 10;$$

Make the appropriate modifications for your model to accommodate this, and achieve maximum distance in 1 hour without leaving the track.

ASSUMPTION: YOU CAN ASSUME THAT YOU DO NOT LOSE CONTACT WITH THE ROAD WHEN YOU GO ON THE SLOPES

Project Timeline	Due Date
Week 1 – Weekly Progress	18 Apr 2026, 11:59 PM
Week 2 – Project Submission	25 Apr 2026, 11:59 PM

