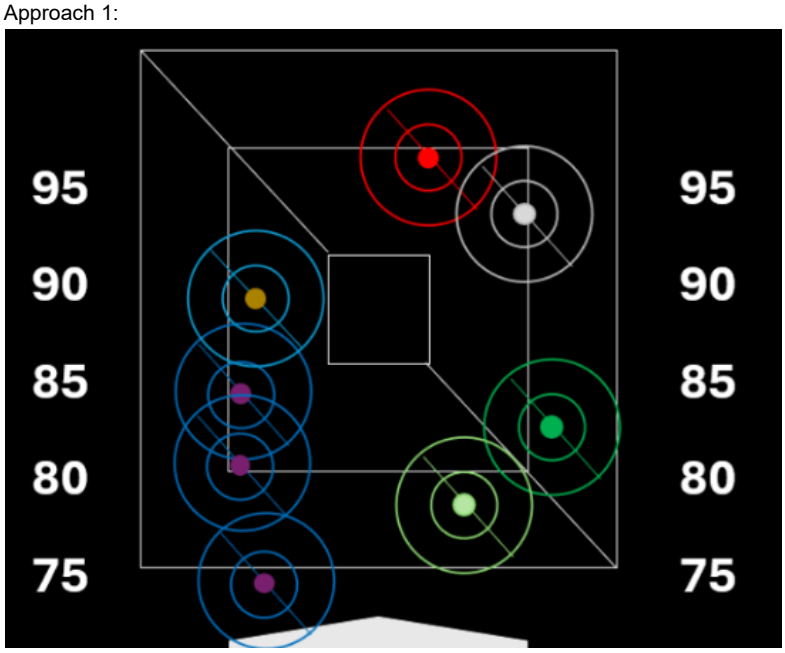
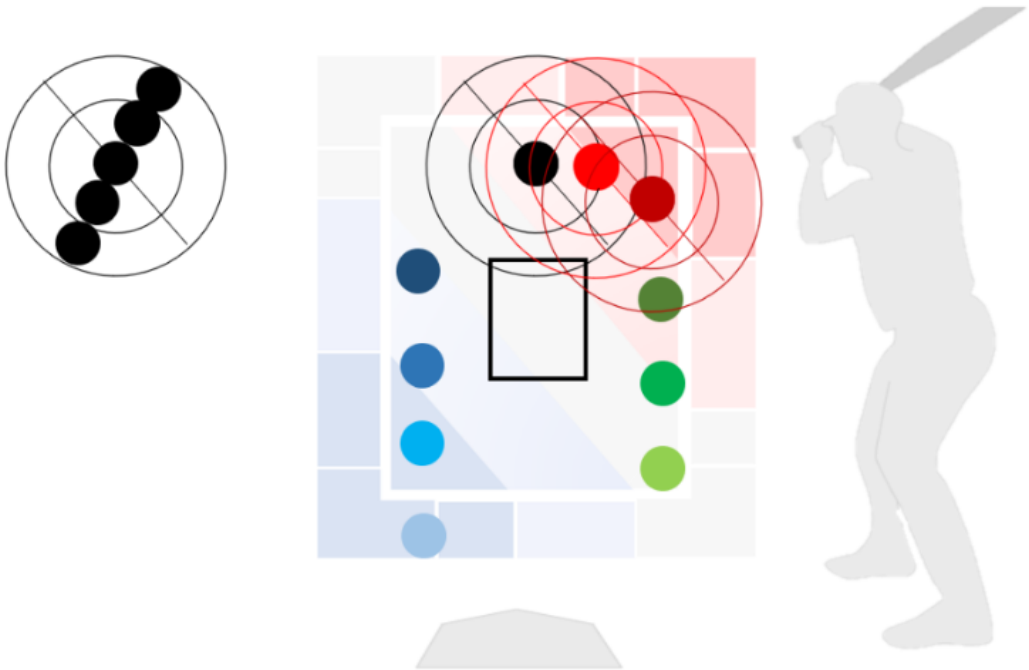
Vertical:

- Continuous approach
  - Overall Goal:
  - For some pitch speed the tunnel should move up by a certain amount
  - Current Problems:
  - We don't know how much it should be moved by
  - Approach 1:
  - 

  - Using this excerpt from the documents, "**If you had a pitching machine throwing 95 MPH aimed at middle up in the zone. Then you took off 5 MPH but aimed it in the exact same spot, the slightly slower pitch would start in the same tunnel but sink due to gravity about 6-8 inches. Then take off 5 more MPH and keep the aim at the middle up location. Now the pitch would start in the tunnel but sink down about 12-16 inches and so on. While the spin etc.... is helping, gravity is still working similar to this diagram above.**"
  - We can begin to find out a ratio of mph/inches. To do this in the graph we would have to first take the universal strike zone and understand how many inches it is.
  - Approach to this is to get the universal strike zone by inches, then divide the length or height to gain the amount of inches. We can write a function which takes in mph of the pitch speed and adjusts for height. (**Need to brainstorm on how to do this with non-linear adjustments**)
  - Approach 2:
  - Using the desmos page https://www.desmos.com/calculator/3znakqr0ws Find the points which correspond to this graph



  -

- And then with the data we can extrapolate the movement of the balls.
- Concerns: I don't know how fast those balls are moving
- End Goal:
- A function which takes in MPH and the Y_Coordinate and then spits out an adjusted Y_Coordinate based on the MPH

Horizontal:

-