

**Hammerhead AI Scenarios**

1. One scenario that our Tron AI will need to handle is recognizing when the enemy is close and when there is an opportunity to cut them off and win, or box them into a smaller box than what we are in, gaining the advantage.
2. Similar to the first scenario the AI agent will need to get and stay close to the enemy in a situation. This is implemented as the chase state in our implementation. Getting close to the enemy will allow for the above state to kick in and wait for the enemy to make a mistake, which we can then capitalize on and win, or at least gain the advantage.
3. The first two scenarios involve attacking, or setting up an attack, but if the AI agent is in danger of being boxed in or cut off it needs to react accordingly to mitigate the danger. Thus the Bail AI would ensure that the enemy can’t cut it off or box it in, or if it is unavoidable at least reduce the effects of the enemy actions.
4. The most common scenario in Tron is when each player is in its own box and the only thing left to do is survive longer than your enemy. This would be implemented as a survival mode in our AI agent. The survival state would simply find the edge of the box that you are in and then spiral around the box until it runs out of room.
5. The AI agent needs to determine what scenario is currently active, or if multiple are active, which scenario is the most important right now. The AI agent then needs to decide which action to take. This master AI would take all the scenarios as arguments to consider and make the best decision.