UT Austin Villa RoboCup 2014 Drop-In Player Challenge Strategy

We used the same strategy as was used in the 2013 drop-in player challenge [1]. Our agent goes to the ball when it is closest and tries to move the ball towards the opponent's goal. If an agent is not closest to the ball, it waits two meters behind the ball. Since two of our agents are always on the same team and neither of them may be closest to the ball, the two agents are often moving to the same target position, but avoid each other using collision avoidance as described in [2].

Our agent tracks the trustworthiness of other teammates' observations by recording the accuracy of teammates' messages about their location and the ball's location, comparing them to values observed by itself. Should the average accuracy fall below a set level, our agent disregards that agent's information.

Long kickoffs into the opponent's side provide a substantial gain in performance as shown in [3]. Therefore, prior to our team's kickoff, our agents beam to random positions on the field and wait for teammates to move to their positions. Then, if no teammate is next to the ball, one of our agents beams near the ball to take the kickoff.

References

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