Problem of the Week Problem D Might I Win Every Time?

In this two-player game, the vertices of a regular hexagon are each covered by a circle.



On a turn, a player may either initial one circle or initial two adjacent circles. (The two adjacent circles must be directly connected by an outside edge of the hexagon.) Players alternate turns. The player initialing the last circle or last pair of adjacent circles is the winner.

Two players, Cameron and Dale, play the game with Cameron going first.

One of the players, Cameron or Dale, can always win the game no matter what moves the other player makes. Describe which player can always win and the winning strategy for that player.