

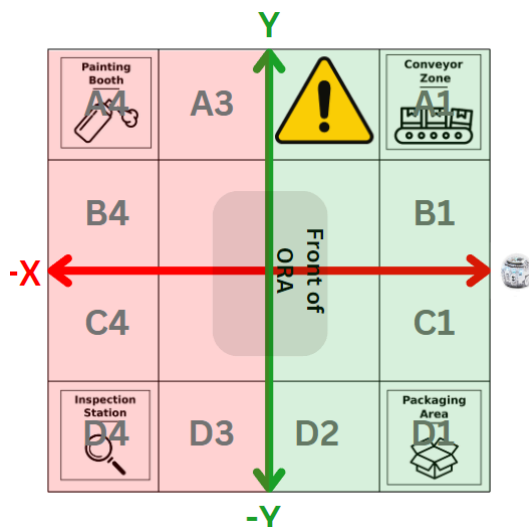
Optional Extension: Hazard Zone

In this activity, students write code to visit the 4 zones of the explain/elaborate activity, with the added challenge that a Hazard Zone has been identified. The ORA cannot pass through the Hazard Zone as a dangerous object is blocking the path and may be disturbed if the ORA is passing through that area. Place a red cylinder in A2 as the Hazard Zone indicator (some students may have coincidentally never crossed A2 by how they previously coded their project. For these groups, move the red cylinder to D2 or a similar square that requires a new sequence).



HAZARDOUS AREA

Setup: Ora is mounted in the center of the mat. (For an added challenge, add Evo to signal Red in 3s and 4s and Green in 1s and 2s)



Criteria:

- The ORA never crosses the Hazard Zone
- ORA loops the sequence of locations
- With the exception of traveling from the initial position to the first step of the loop, all movements are constrained to a single axis at a time (no diagonal across rows/columns, and no raising while moving side to side)
- ORA stays at each labeled zone for 2 seconds before moving to the next location.
- *Note: The final block of the loop must be planned so that returning to the first zone still moves only one axis at a time.*