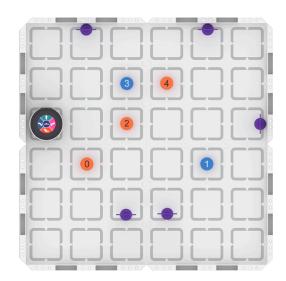# Match & Dispatch

Use Button Coding to move the
VEX AIM Coding Robot to deliver
numbered barrels to the matching AprilTag ID!

Step by Step

1. Set up the Field as shown above.
   - Number five barrels from 0 to 4, (one number per barrel). Place the barrels on the field, with no more than two barrels in a single row.
   - Place five AprilTags on the field, with no more than two on any single side.
   - Place the robot at the Start Position on the left side of the field, facing a barrel in the same row.

2. Use Button Coding to code the robot to place each numbered barrel in front of its matching AprilTag ID.
   - Plan a path to pick up the barrel and move to the matching AprilTag.
   - Code the robot to follow that path, and face the AprilTag.
   - Use the kicker to place the barrel in front of the AprilTag.
   - Continue until you have moved all barrels to their matching AprilTags! Complete the project using **as few behaviors as possible**.
   - The robot that uses the fewest behaviors wins! In case of a tie, the first to complete wins!

'LEVEL UP'

- **Delivery Order Challenge -** Deliver the numbered barrel to the matching numbered AprilTag IDs in the given order: 0→ 1 → 2 → 3 → 4. The fastest time wins!

Pro Tips

- Develop a strategy to move barrels more easily. To improve efficiency, *always choose the barrel that requires the fewest behaviors to pick up on the field.*

Standard: CSTA 1B-AP-11: Decompose (break down) problems into smaller, manageable subproblems.