



## Corner Code

Crack the hidden passcode! Code the AIM Coding Robot to scan each corner of the field and combine the identified AprilTag IDs to decode the number.

### Step by Step

1. Have a partner choose 4 digits from the numbers 0–4 to create a secret 4-digit passcode.
  - Write the selected 4-digit passcode in the passcode zone in the top area of the field and cover it with a piece of paper or tape (as shown in the red question mark area above).
2. Have your partner set up the field, as shown in the image above.
  - Place the robot at the center of the field, facing the top wall.
  - Place the AprilTag IDs that match each digit of the passcode at the corners of the field.
    - First digit in the top-right
    - Second digit at the bottom-right
    - Third at the bottom-left
    - Fourth at the top-left.
3. Code the robot to use AI Vision to detect the AprilTag IDs to reveal the 4-digit passcode. The robot should:
  - Turn toward each AprilTag ID.
  - Identify the AprilTag ID.
  - Display all 4 IDs in order as the 4-digit passcode on the robot's screen.
  - Reveal the passcode on the field. Did your robot successfully crack the code?
4. Continue building and testing your project until you have printed the passcode correctly!

### 'LEVEL UP'

- **5-Digit Passcode** – Reset your passcode using all five of the AprilTag IDs. Remix your project to detect and print the new 5-digit passcode on the screen.

### Pro Tips

- Use the **else if** block to check each AprilTag ID in order.
- Make sure to check for all AprilTag IDs with the **get object data** block.

