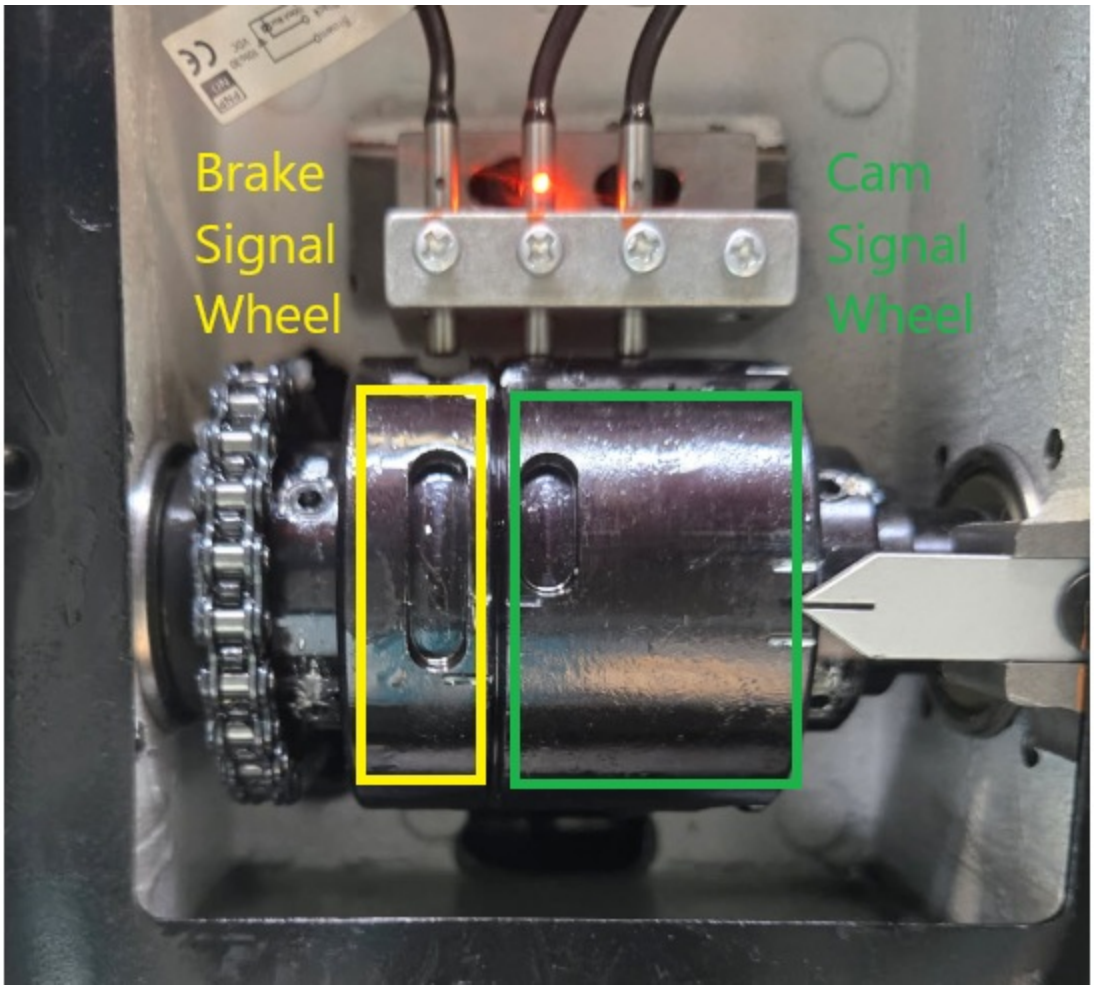
# Adjusting ATC Cam Wheel

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## Step 1 — ATC Motor Brake

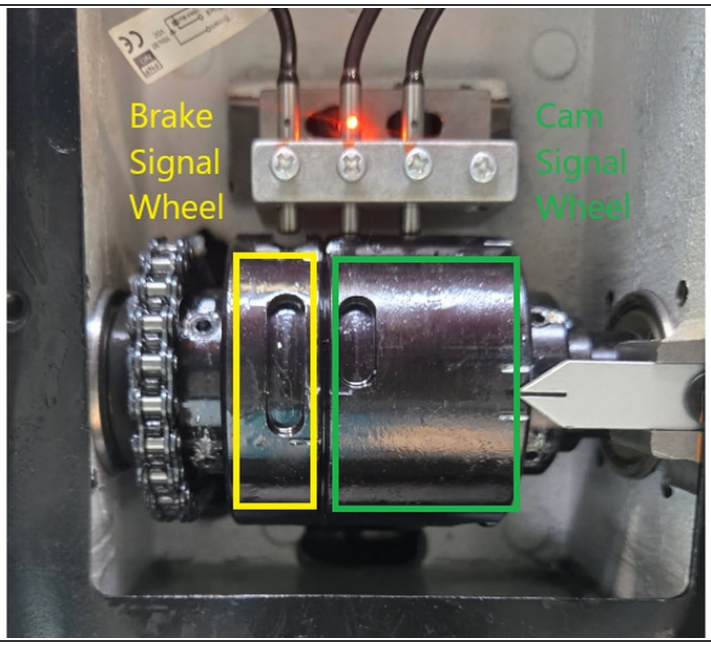






- This adjustment is performed when the ATC arm drifts or does not stop consistently at the beginning or end of its rotation.
- **Before adjusting the signal wheels**, verify that the ATC motor brake is fully engaged and operating correctly.

## Step 2 — ATC Cam Wheel Timing Explanation




- The ATC arm uses two signal wheels to control position sensing during the tool change:
  - **Left Wheel** = Brake Signal Wheel
  - **Right Wheel** = Cam Signal Wheel

- Each wheel rotates past a fixed sensor block containing three sensors. These sensors detect the


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arm's position and trigger the next motion in the ATC sequence.

## Step 3 — Brake Wheel Mechanical Adjustment




- The Brake Signal Wheel should always be adjusted first. The wheels are secured to the arm shaft by green-circled set screws, loosening the screws allows each wheel to rotate independently of the shaft for fine timing adjustments.
  - Left screws adjust the Brake Signal Wheel, Right screws adjust the Cam Signal Wheel
- Loosen the left-side set screws on the Brake Signal Wheel.
- Adjust the timing by moving the wheel slightly UP or DOWN:
  - Brake engages too early? Move the brake wheel **UP**.
  - Brake engages too late? Move the brake wheel **DOWN**.
- Use the two timing reference marks on the wheels as the default starting point — these are small gray dash indents on the wheel edges, shown in blue in the picture for clarity.
- Tighten the set screws and verify the brake engages and holds correctly at both the start and end of the ATC arm motion.

## Step 4 — Cam Signal Wheel Mechanical Adjustment




ⓘ This adjustment should only be performed if correcting the Brake Signal Wheel timing did not resolve the issue.

- Confirm the ATC arm is already in the Home Position — centered between the spindle and the tool pot. This is the default stopping point after a completed tool change.
- Loosen the right-side set screws on the Cam Signal Wheel.
- Rotate the Cam Signal Wheel until only the center sensor (2) is lit. This typically places the wheel's arrow between the two small red reference marks.
- Tighten the set screws and verify that the middle sensor switches cleanly on and off as the arm enters and exits the Home Position.