

Wheel Replacement Instructions For Amicus Robots

1. When replacing the wheels, it is important to differentiate between an Upper Ball Throw Wheel and a Lower Ball Throw Wheel. An Upper Wheel is marked with an arrow pointing outwards (a in Photo 1) and a Lower Wheel is marked with an arrow pointing inwards (b in Photo 1).
2. It is also important to always replace the two Upper Wheels at one time as those two wheels work together to apply sidespin to balls and a large difference in the quality of those 2 wheels can result in unwanted sidespin. Never replace only 1 Upper Wheel.
3. Start by replacing the 2 Upper Wheels. Starting on the right wheel, unscrew the 4mm hex screw at the base of the wheel (a in Photo 2), then the two #1 Phillips screws on the Ball Throw Motor Cover (b in Photo 2). Please note that a 4mm hex wrench is supplied with your robot.
4. Unscrew the #2 Phillips screw (a in Photo 3) that holds the Ball Throw Motor (b in Photo 3) to the Throwing Central Holder (c in Photo 3).
5. Note the amount of metal shaft that extends past the plastic hub of the wheel (a in Photo 4). Loosen the 2mm hex setscrew in the plastic hub of the old wheel (b in Photo 4) and pull the wheel off the motor shaft. Please note that a 2mm hex wrench is supplied with your robot.
6. Install a new Upper Wheel (1a) onto the shaft and leave the same amount of shaft exposed past the wheel hub as noted in Step 5. Then tighten the setscrew to secure the wheel onto the motor shaft.
7. Remount the Ball Throw Motor onto the Throwing Central Holder and reattach the Ball Throw Motor Cover by reversing Steps 3 & 4. When tightening the 4mm hex screw, tighten at the *furthest out* position as shown in the inset of Photo 2 (position shown is for right wheel; screw position for left and bottom wheels will be a mirror image). **CAUTION:** Do not overtighten that screw.
8. Repeat steps 3-7 on the left Upper Ball Throw Motor.
9. Replacing the Lower Wheel (1b) is much easier. Again, note the amount of motor shaft exposed past the plastic hub. All you have to do is loosen the setscrew in the hub of the wheel, pull the wheel off, and push on a new Lower Wheel until the same amount of shaft is exposed. Then tighten the setscrew and adjust the 4mm hex screw to its *furthest out* position.
10. Most of the time, when replacing the wheels with new ones, it is best to set the wheels at their *furthest out* position as noted in Steps 7 and 9. Occasionally, the wheel clearance may need to be adjusted to a tighter position. To do so, follow the instructions given in the Owner's Manual for your robot.

