

# ZeroG Arm Quick Start Guide



## Safety and Hazard Information

The ZeroG Arm flexes effortlessly, easily following directional guidance during work. The arm uses strong springs to support the tool holder and tool (the payload). These springs enable the arm to move quickly and powerfully. Be mindful of the arm's power and maintain control during operations.

<b>WEIGHT CAPACITY</b>	Payload capacity is 8–36 lbs (3.6–16 kg). Arm payload includes the tool holder and tool weight.
<b>PINCH POINTS</b>	<ul style="list-style-type: none"> <li>• Keep fingers, clothing, tools, work pieces, and other items away from the labeled pinch points on the ZeroG Arm.</li> <li>• During work operations, avoid touching the arm.</li> <li>• When the arm is not docked, use the attached tool's handle to move and fine-tune the arm's placement.</li> <li>• Use protective covers on ZeroG Arm; covers reduce access to many of the arm's pinch points and shield the arm from dust and debris.</li> </ul>
<b>ENVIRONMENTAL HAZARDS</b>	<ul style="list-style-type: none"> <li>• Keep liquids, dust, paint, and debris away from the ZeroG Arm.</li> <li>• Protect arm links by always using the supplied cloth and plastic arm covers.</li> </ul>
<b>DOCKING &amp; POSITIONING; PAYLOAD REMOVAL</b>	<ul style="list-style-type: none"> <li>• Dock the ZeroG Arm when arm is not in use.</li> <li>• Do not leave the ZeroG Arm free or floating.</li> <li>• Load/Unload the tool holder and tool only when the ZeroG Arm is securely docked.</li> </ul>
<b>UNDOCKING AN UNLOADED ZEROG ARM</b>	<ul style="list-style-type: none"> <li>• Be alert and cautious when near and/or working with an unloaded arm. An unloaded ZeroG Arm <b>rises forcefully</b> if the arm is released suddenly from a docked position; such a release could cause an injury.</li> </ul>
<b>LEANING OR HANGING</b>	<ul style="list-style-type: none"> <li>• Do not lean on or hang from the ZeroG Arm.</li> </ul>
<b>LIFT KNOB ADJUSTMENTS</b>	<ul style="list-style-type: none"> <li>• When adjusting a ZeroG Arm's lift knob, do not over tighten or force the stop at the end of knob travel.</li> </ul>

## ZeroG Arm Specifications

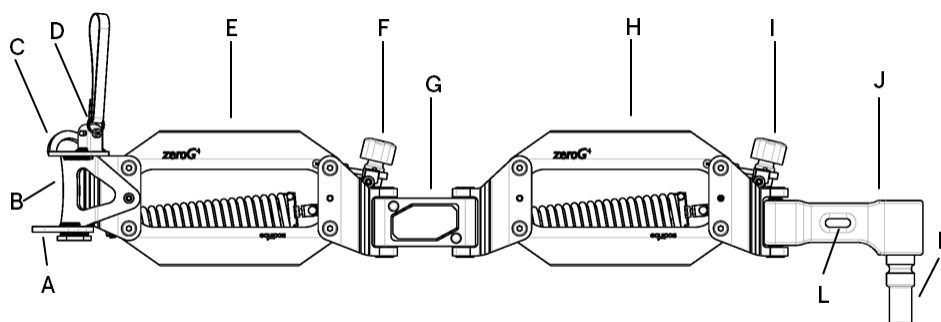
<b>WORK ENVELOPE</b>	Maximum reach (arm only): <ul style="list-style-type: none"> <li>▪ Horizontal: 36" (0.9 m); Vertical: 24" (0.6 m)</li> </ul>
<b>ARM WEIGHT</b>	Approx. 16.8 lbs. (7.6 kg) (excluding the tool holder and tool)

## Additional Resources

Refer to the system maintenance sheet (#105167) for care and upkeep information for the ZeroG Arm. Videos about system components and operation are available at our EksoWorks YouTube channel and at our website: [www.eksobionics.com](http://www.eksobionics.com).

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## Parts of the ZeroG Arm



A	Docking ring	G	Middle link
B	Tool holder receiver	H	Proximal link
C	Attachment point (tool tether)	I	Lift knob (proximal)
D	Rotation lock	J	Base link
E	Distal link	K	Base link shaft
F	Lift knob (distal)	L	Attachment point (arm tether)

## Adjusting the Lift

Arm links should move freely without binding during operation. Lift is the force that the ZeroG Arm exerts to resist the pull of gravity on the tool. The ZeroG Arm has two adjustable links:

- The distal link is the forearm—the link that holds the tool holder and tool (the payload).
- The proximal link is the upper arm—the link that connects to the base link (which connects to the mount).

Each of these two links has a lift knob. Use these lift knobs to change the force of lift to meet the requirements of the work being performed.

- Turn a knob clockwise to increase lift.
- Turn a knob counterclockwise to decrease lift.

Begin by adjusting the distal link. With a tool holder and tool installed in the arm, move the arm so that the distal link is slanting about 5° above the horizon. When the distal link is resting at near horizontal (i.e., at a 5°-slant), the link's lift knob should turn easily. Turn the knob as needed to adjust the lift. Next, move the proximal link so the link also balances at a 5°-slant and turn that link's lift knob to adjust the lift. The amount of lift should be similar for both distal and proximal links.

When the arm has achieved the desired lift, test the lift settings by carefully moving the attached tool up and down to the full extent of the work envelope range. The links should track smoothly as you move the tool.