

20 Years in business

The MMP-6-DOF robot manipulator arm . It is the most capable of The Machine Lab's manipulator arms with its precise zero-backlash feedback positioning, and wide range of motion. It is extremely light-weight at 24 pounds and can lift 20 pounds at a full extension of 48 inches.

# MMP-6-DOF

## Manipulator Arm

KEEP IT SIMPLE, KEEP THEM SAFE

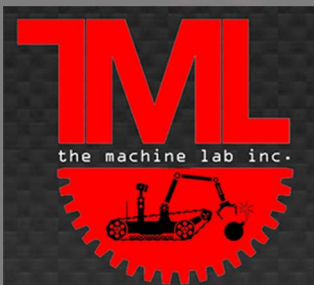


The arm has a low power consumption and can be outfitted with a variety of interchangeable gripper tools such as additional cameras, hooks, glass breaker, spreaders, door knob grips, and box knife.



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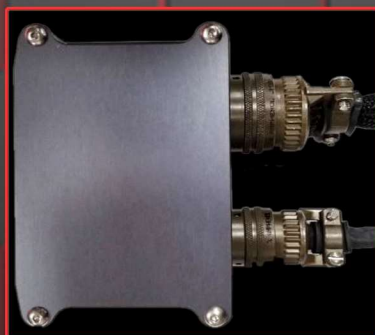
**The Machine Lab, Inc.**  
[www.themachinelab.com](http://www.themachinelab.com)



# MMP-6-DOF

## Robot Manipulator Arm

|                         |  |
|-------------------------|--|
| Size                    | 48" reach  |
| Weight                  | 24 pounds  |
| Transport Case          | Pelican case for transport or storage.   |
| Payload                 | Can lift 20 pounds at full extension.  |
| Drive Type              | <ul style="list-style-type: none"> <li>- High precision coreless brushed DC planetary gearmotors primary drive</li> <li>- Harmonic gearheads with no backlash</li> <li>- Torque limiters on each joint</li> <li>- Absolute position feedback, closed loop</li> </ul>   |
| Manipulator Arm Details | <ul style="list-style-type: none"> <li>- 6 axis manipulator arm</li> <li>- Turret with 210 deg. rotation</li> <li>- Shoulder with 210 deg. rotation</li> <li>- Elbow with 200 deg. rotation</li> <li>- Wrist rotate with 360 deg. continuous rotation</li> <li>- Wrist tilt with 200 deg. rotation</li> <li>- Parallel gripper with 5 inch grasp, 30 pounds pinch force</li> </ul> |
| Arm Controller          | <ul style="list-style-type: none"> <li>- 6 channel controller with closed loop feedback</li> <li>- 12 - 28 Volt operation, 11 amp max draw</li> <li>- Aluminum CNC machined housing with MIL spec connectors</li> <li>- Control protocol: PWM, USB</li> <li>- Small size: 4" x 3" x 3"</li> </ul>  |
| Camera                  | <ul style="list-style-type: none"> <li>- Color micro bullet camera mounted above gripper</li> <li>- NTSC output, 1200 lines</li> <li>- Video feed accessible through control box</li> <li>- Powered via control box</li> </ul>   |
| Materials               | <ul style="list-style-type: none"> <li>- CNC 6061 and 7075 aluminum</li> <li>- 4130 chromoly tubes</li> <li>- All stainless steel hardware</li> </ul>  |
| Accessories             | <ul style="list-style-type: none"> <li>- Gripper finger tips are easily removeable with no tools. They can be replaced in seconds with tools such as hooks, cutting knife, cable cutter, door knob gripper or spreaders.</li> <li>- Droppable tool blocks also available</li> </ul>  |



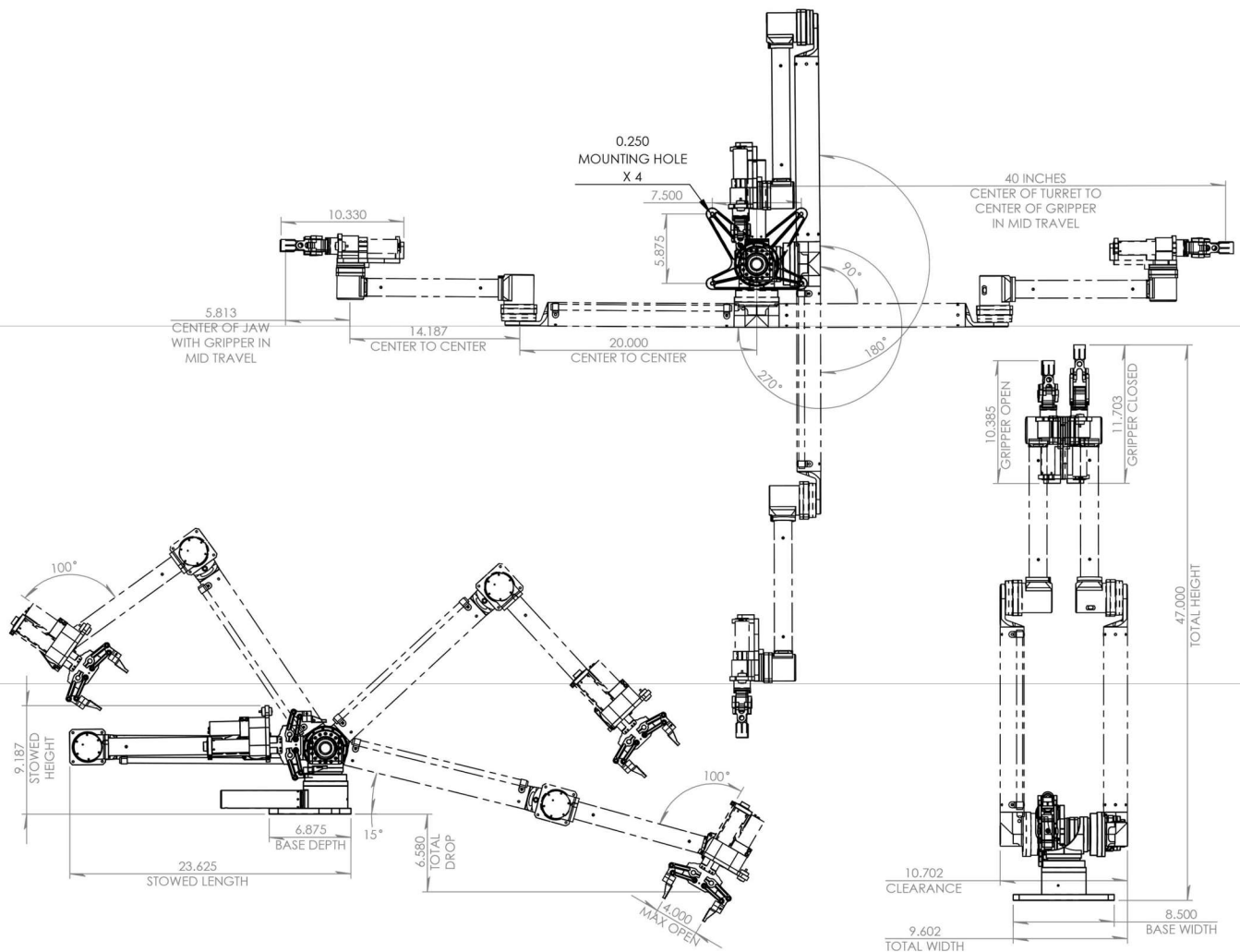
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