





**TP-196-006**

# **WC1500-DM6 6WD ATR PLATFORM**

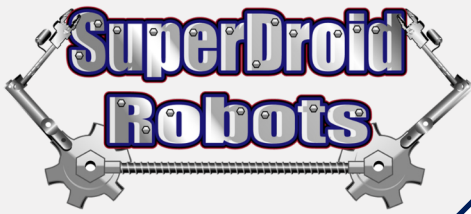
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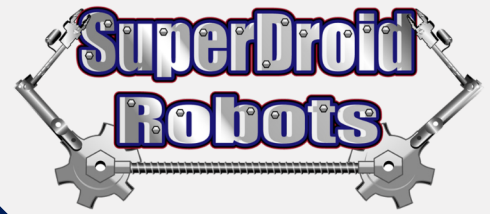
 224 Technology Park Lane, Fuquay Varina, NC 27526

Revised Sep 9, 2020



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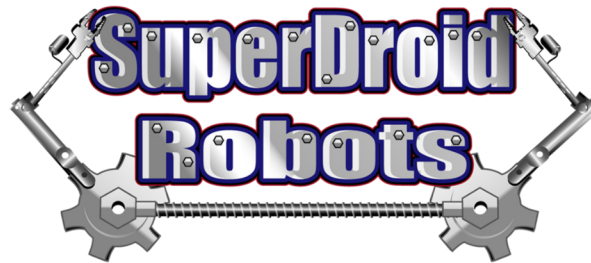


## LEGAL INFORMATION

Accurate content is of the utmost importance to the authors of this document. If you find an error or see an item that needs more clarification report it to [www.superdroidrobots.com](http://www.superdroidrobots.com)

SuperDroid Robots Inc. is incorporated in Wake County, NC USA  
SuperDroid Robots also does business as Team Half-Life  
SuperDroid Robots is a registered trademark of Team Half-Life.  
Prior to purchasing review our Terms (<https://www.superdroidrobots.com/terms.htm>)

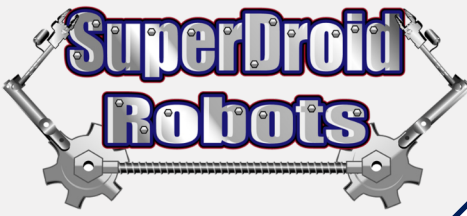
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3. Agreements shall be construed in accordance with the laws of the State of North Carolina, and the rights and obligations created hereby shall be governed by the laws of North Carolina.
4. In the event a dispute or controversy arises, such dispute or controversy (including claims of default) shall be brought in the courts of Wake County, North Carolina and the plaintiff hereby agrees to this choice of venue.

*The following section contains a list of non-warrantable items. Any procedure covered in this section will void the coverage warranty of the robot, or robots, you have purchased.*

1. *Removal of the lid, or access to the interior of the robot is considered abuse and neglect and as such will void warranty; Unless otherwise instructed by SuperDroid Robots.*
2. *Using the robot for purposes that it is not intended, or in any situation that could cause damage outside of the normal wear and tear of the robot, will not be covered under warranty and be seen as neglect of the robot system.*
3. *Improper maintenance and overall disregard to the upkeep of the robot can harm, and/or cause severe damage to the robot, leading to malfunctions and/or destruction of the functionality of the robot.*
4. *Located throughout the entirety of this document are other warranty voidable perimeters displayed by RED text Any of which will again cause an immediate void of the warranty and disqualify repairs of the robot.*



# SAFETY GUIDE

Thank you for purchasing this product!



**WARNING** - Before using, read this manual to ensure correct usage and operation. After reading, store in a safe place for future reference. Incorrect handling of this robot could result in personal injury or physical damage. The manufacturer assumes no responsibility for any damage caused by mishandling that is beyond normal usage defined in these manuals of this product.

**NOTE** - The information in this manual is subject to change without notice.

- The manufacturer assumes no responsibility for any errors that may appear in this manual.
- The reproduction, transmission or use of this document or contents is not permitted without express written authority.

## Safety Precautions



This symbol indicates an additional warning (including caution). The content will be clearly indicated in an illustration or nearby.



This symbol indicates a prohibited action. The content will be clearly indicated in an illustration or nearby.



***Do not operate the robot if it isn't working properly.***

If you notice something unusual when operating the robot, immediately stop operating it and turn the unit off. Contact our technicians at [info@sdrobots.com](mailto:info@sdrobots.com) and explain the issue. Unusual can include things such as smoke, strange odor, damage to the chassis or components etc.



***Be careful when operating around children and animals***

Children and animals may not understand that the robot has moving parts. Exercise caution when operating the robot and remain aware of your surroundings.



***Do not expose interior to liquid or insert foreign objects***

1. Do not place the robot near water while interior is exposed (ex. flooded area, bathroom etc.).
2. Do not insert any foreign objects into the robot.
3. Avoid placing the robot into a container/bag/case that contains objects besides it's own components.



***Be careful when interacting with internal components of the robot.***

The robot contains moving and electric components. Modification and/or disassembly of the robot could result in personal injury. **ALWAYS** disconnect the power before working on the robot.



***Do not drop, throw, or otherwise cause an impact to the robot***

The robot contains moving components, wiring, and electrical systems. If the robot is dropped or otherwise receives an impact, internal components could be damaged. If the robot is dropped or otherwise falls and is damaged, turn it off immediately.



***Pinching hazard***

The treaded systems have very powerful motors. The treaded design presents many pinch points! If fingers or hands are inside the treaded section and the motors energize, injury may occur.

# SECTION 1 - ASSEMBLY

## Mechanical Assembly

### NOTE

Your robot may come in a crate or carry case. As you unpack your robot, note how everything fits so you can store your platform.

1. Before starting the assembly of the robot, be sure to follow the instructions to remove the brake from the back of the motors. The brake is engaged by default. Running the motor with the brake on will damage it beyond repair.
2. Once the brake is removed, remove the six socket head screws that hold the outer clamping plate to the motor. This plate will not be used and can be discarded. Keep the socket head screws that were removed and use them to mount the motor to the chassis. Use Loctite to keep the screws from vibrating loose. See **Figure 2**.
3. Let air out of the pneumatic wheels so that they are easier to manipulate. Take care not to pinch the inner tube when bolting to the hub. After the wheel is bolted in place, fill the tire with air to match the specifications on the side wall of the tire. See **Figure 3**.

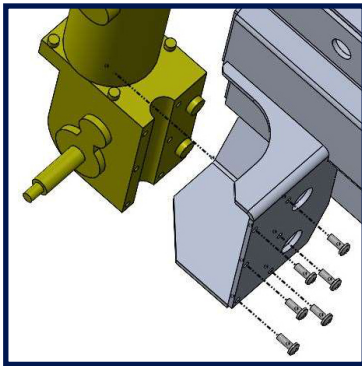


Figure 2

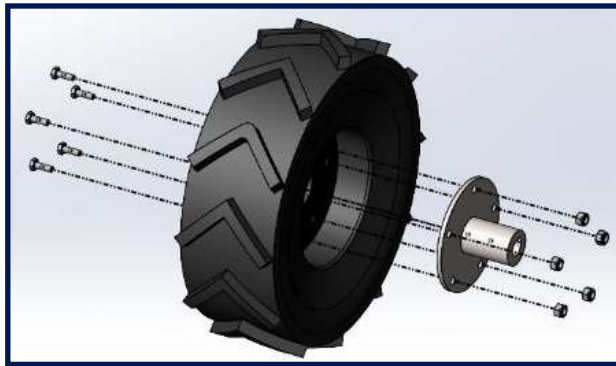


Figure 3

4. Align the key slot on the hub with the key stock on the motor shaft. Slide components together and secure with the provided M10 nut. See **Figure 4A**, **Figure 4B**, and **Figure 4C**.

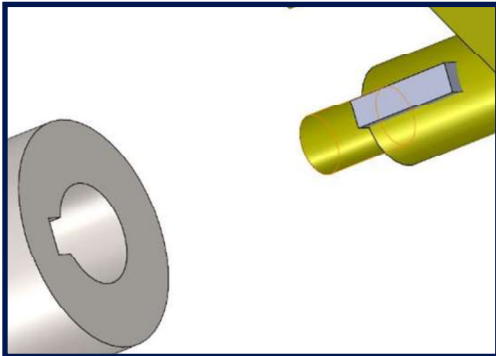


Figure 4A

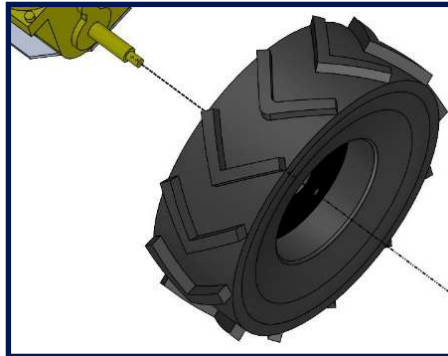


Figure 4B

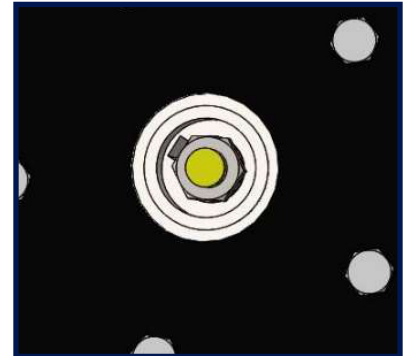
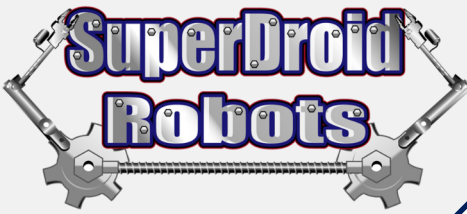


Figure 4C





## SECTION 1 - ASSEMBLY CONTINUED

5. Install cord grips for the motor cables to enter the chassis. The cord grip has a nut that turns off the back end of the grip housing (**Figure 5A**). Remove the cord grip nut and insert cord grip into the chassis holes located near the motor (**Figure 5B**). Screw on the nut from the inside of the chassis to lock cord grip in place (**Figure 5C**). Feed motor cable through cord grip and tighten down the cord grip cap until snug.
6. Use provided hardware to install rear cover. (**Figure 6**)
7. Use lid screws to install chassis lid. (**Figure 7**)

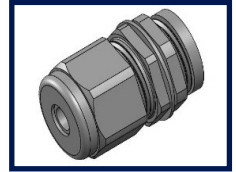


Figure 5A

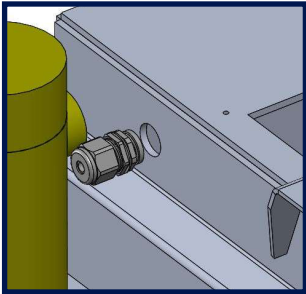


Figure 5B



Figure 5C

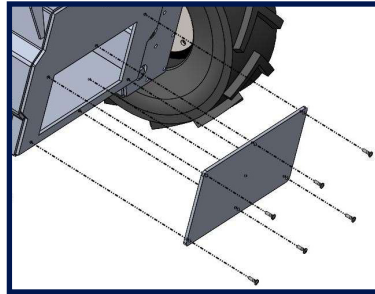


Figure 6

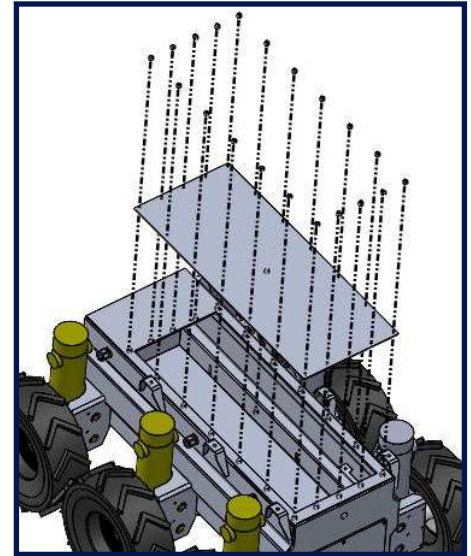


Figure 7

8. Mount 80/20 rails. Insert  $\frac{1}{4}$ -20 bolts from the bottom side of the rail brackets, and loosely screw into the T-slot nut (**Figure 8A**). Slide the rail onto the bracket ensuring the nut rides inside the groove of the rail (**Figure 8B**). Once the rail is resting on all three brackets, adjust the position of the rail to the desired location. Tighten down nuts to hold rail in place (**Figure 8C**). Repeat to other side.
9. The mounting of any additional components will require the use of basic hand tools for drilling and mounting. Be sure to place the object in position before creating any permanent changes to the chassis. This allows the opportunity to check for ease of placement, or any interference the component may have with active parts of the robot.

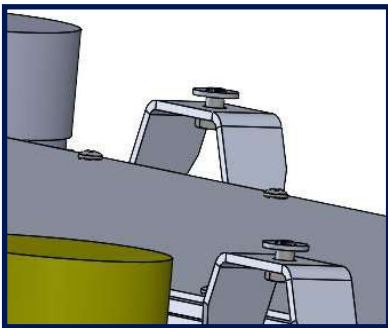


Figure 8A

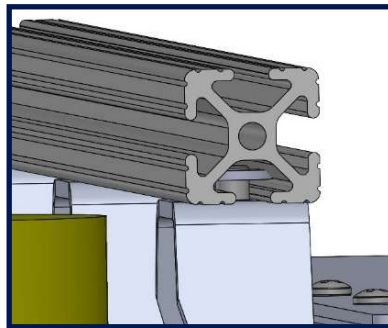


Figure 8B

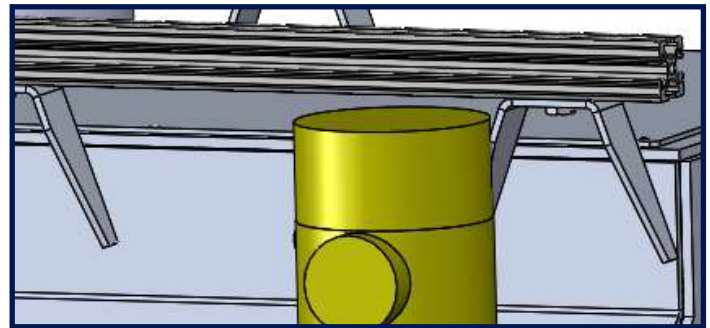
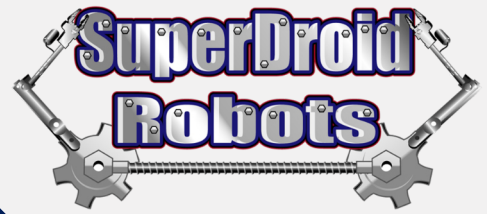


Figure 8C



## SECTION 2 - ELECTRICAL ASSEMBLY

### Resources

#### NOTE

Never charge batteries unattended. Regularly charge batteries to prevent levels from dropping below point of recovery.

[http://www.superdroidrobots.com/terms\\_batteries.html](http://www.superdroidrobots.com/terms_batteries.html)

For electrical assembly locate the Schematic labeled 'Vectoring Robot' on our resources page linked below.

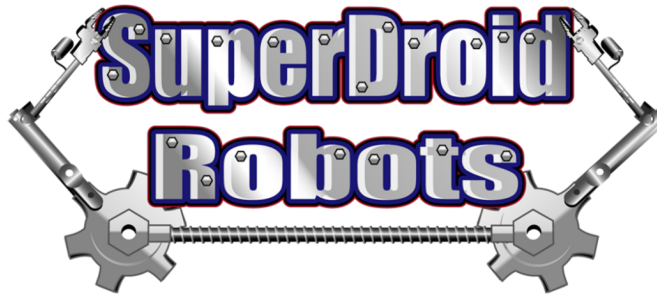
[Electrical Assembly Schematics](#)

For additional support on wiring, soldering, and crimping, please visit the following support pages.

[Electrical Motor Hookup](#)

[Electrical Power Hookup](#)

[General Electrical Support Pages](#)



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