MINI MTB KICKER

How I did it!

These plans were created in conjunction with this video:

https://youtu.be/amoZbd7_Y04

Watch Now!

Disclaimer

The information provided in this document is intended solely as a documentation of my personal experience in building a mountain bike jump using store-bought wood. This guide does not constitute professional advice or recommended instructions for others to replicate. The construction and use of a mountain bike jump involve inherent risks and dangers that may result in injury or damage. By reviewing the content in this guide, you acknowledge and agree to the following:

1. Assumption of Risk: Building and using a mountain bike jump can be hazardous. There is a risk of bodily harm, property damage, or even death associated with the construction, use, or misuse of the jump. You assume all risks and responsibilities for any consequences that may arise from your actions.

2. Personal Responsibility: It is your responsibility to ensure that you have the necessary skills, tools, and materials to safely build and use a mountain bike jump. If you are considering building your own jump based on my experience, I recommend seeking guidance from a qualified professional to assess the suitability of the materials and construction methods for your specific situation.

3. Treated Wood for Outdoor Use: The wood used in this project has been treated for outdoor use to enhance its durability against the elements. If you choose to replicate this build, ensure that you use appropriately treated wood to maintain the structure's integrity and safety in outdoor conditions.

4. Adult Supervision: If you are under 18, please make sure to have adult supervision when building and riding a mountain bike jump. The use of power tools and other construction materials requires experience and caution. Always seek help from a responsible adult to ensure your safety.

5. Public Use: The designs and materials I utilised in building my mountain bike jump are intended for private, personal use only. Any replication or adaptation of my design should be carefully considered in light of its intended use.

6. Structural Approval: If you decide to build a mountain bike jump based on my experience, you should have the structural integrity of your construction reviewed and approved by a qualified structural engineer or professional before use. This step can help ensure the jump's safety and stability.

7. No Guarantees: The information provided in this guide is based on my personal knowledge and experience up to the date of publication. However, circumstances may change, and techniques or safety considerations may evolve. There is no guarantee that the information provided will be error-free, complete, or up to date.

8. Release of Liability: I shall not be held liable for any injuries, damages, losses, or claims arising from the use of the information provided herein. By choosing to use this guide as a point of reference, you agree to release me from any and all liability.

9. Local Regulations: Building and using a mountain bike jump may be subject to local laws, regulations, and ordinances. It is your responsibility to ensure compliance with such regulations.

10. Modification and Adaptation: If you choose to replicate or adapt my designs and instructions, you do so at your own risk. I shall not be responsible for any consequences that arise from such modifications.

By reviewing this guide, you acknowledge that it is intended to share my personal experience and insights into building a mountain bike jump. If you do not agree with these terms, you should refrain from using this guide as a basis for your own project.

Remember that safety is paramount, and it is recommended that you exercise caution, wear appropriate protective gear, and prioritise your well-being throughout the construction and use of the mountain bike jump.

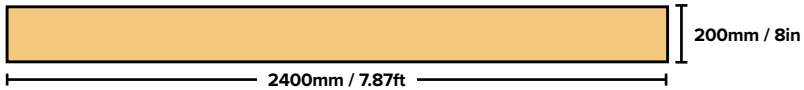
Date: 27/08/2024

Check List - Use Treated Wood

Imperial sizes are to be used as a guide. Check what size wood you have available.

2 x Treated Pine Sleepers

Metric 200mm x 50mm - 2400mm
Imperial 8in x 2in - 7.87ft

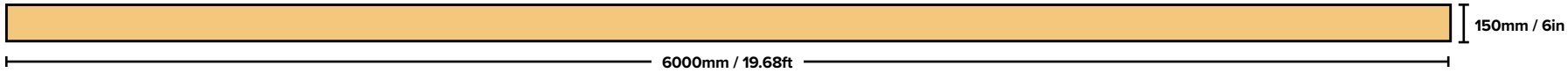


44 x 50 mm Bugel Screws

8 x 75 mm Bugel Screws

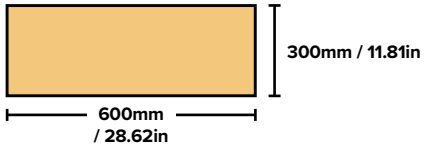
1 x Treated Pine Sawn Slat

Metric 150mm x 20mm - 6000mm
Imperial 1in x 6in - 19.68ft



1 x Marine Plywood

Metric 600mm x 30 mm x 12mm
Imperial 23.62in x 11.81in x 0.47in



Optional Wheels Checklist

Adding wheels makes the jump easier to move but harder to build.

2 x 200m Cold Steel Rubber Wheel, 13mm Axle

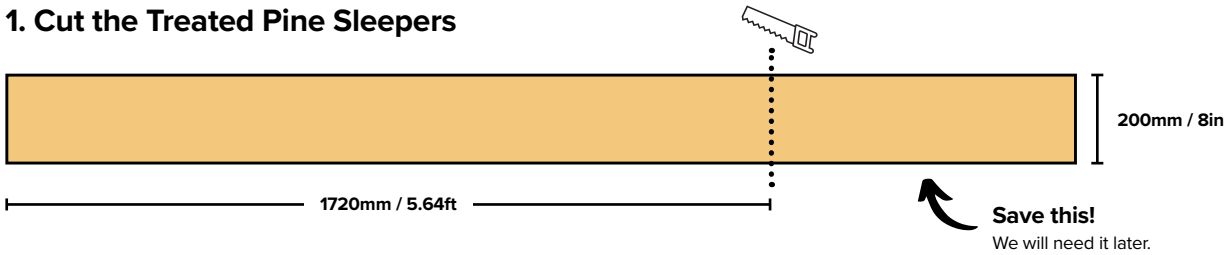
1 x M12 - 1m Threaded Rod

6 x M12 - Washers

6 x M12 - Nuts

Step 1 - Cutting The Curve

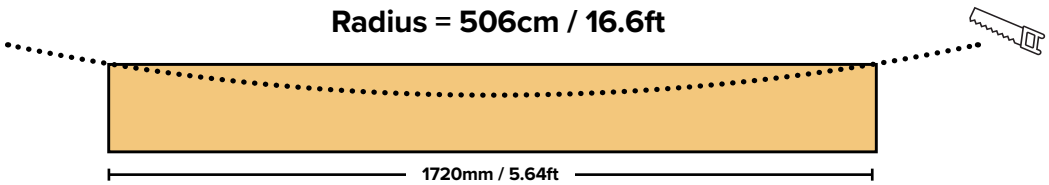
1. Cut the Treated Pine Sleepers



2. Mark and cut the curve

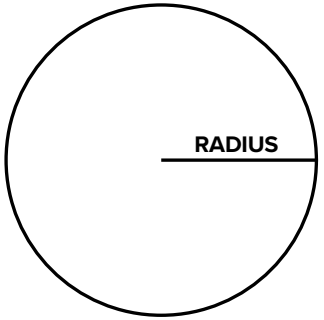
Using a radius of 506cm / 16.6ft mark a curved line on the wood. The line should go through both top corners.

Cut along the line you have drawn.



What is a radius?

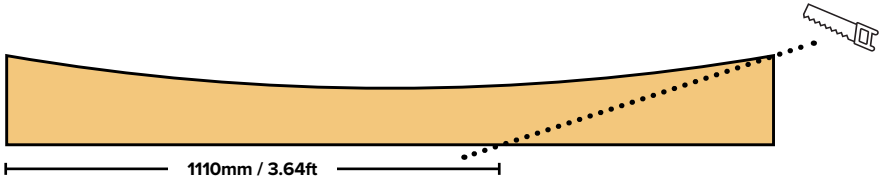
It's the measurement of a straight line from the centre of the circle to the edge.



Step 2 - Cutting The Corners

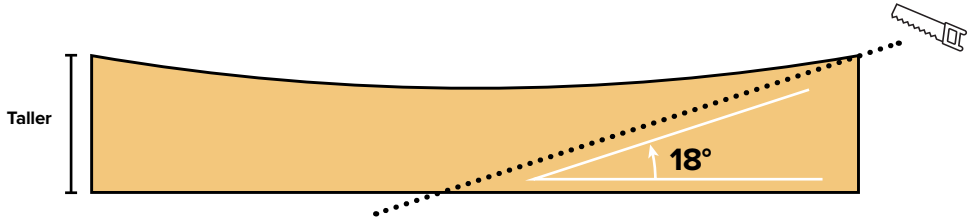
1. Cut the corner to make it sit flat

So the kicker sits flat on the ground, mark the bottom edge at 1110mm / 3.64ft and draw a line to the corner as shown below.



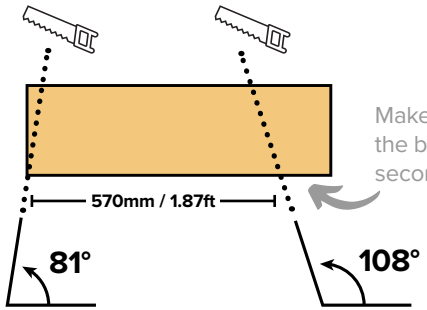
Important! Is your wood taller than mine?

If you are using different-sized wood to mine ignore the measurements and make sure the line is at 18° and meets the top right corner.



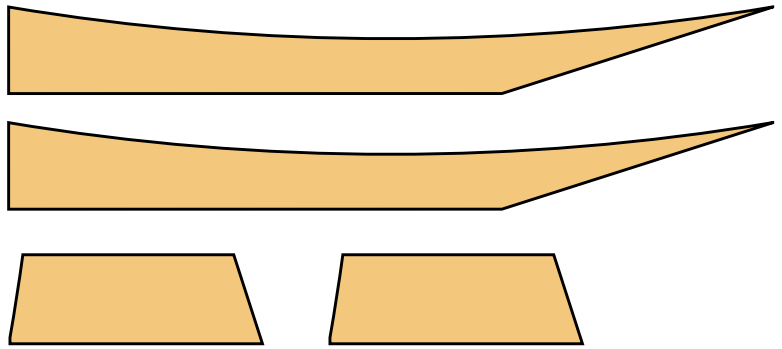
2. Cut the support legs

Using the remaining pieces of treated pine sleepers cut the corners off at the correct angle.



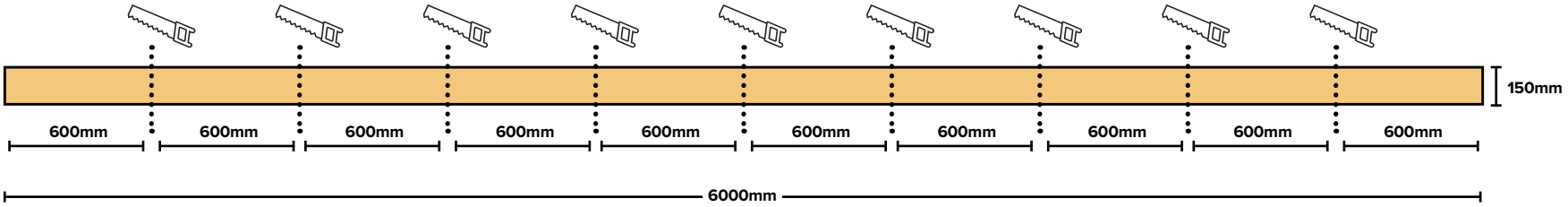
Make sure you measure along the bottom when marking the second cut.

You should now have these 4 pieces

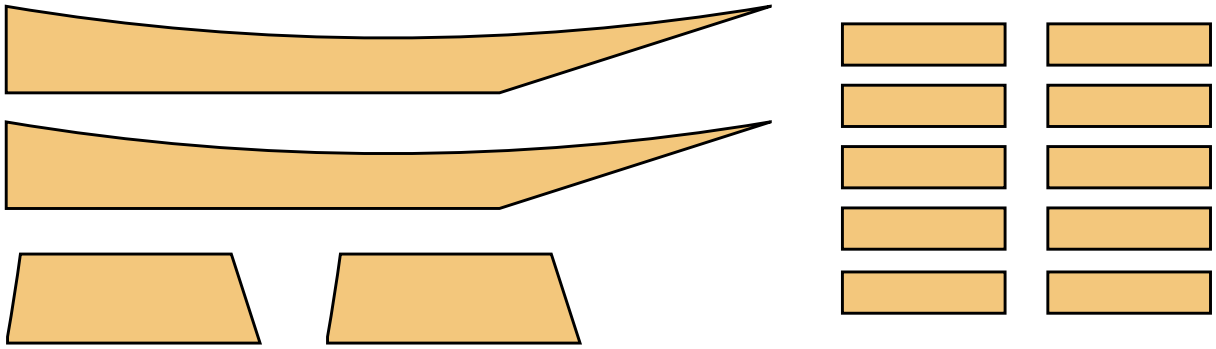


Step 3 - Cutting The Decking

Now it's time to cut the slats for the decking. I cut my 6-meter length into 10 pieces.



You should now have these 14 pieces

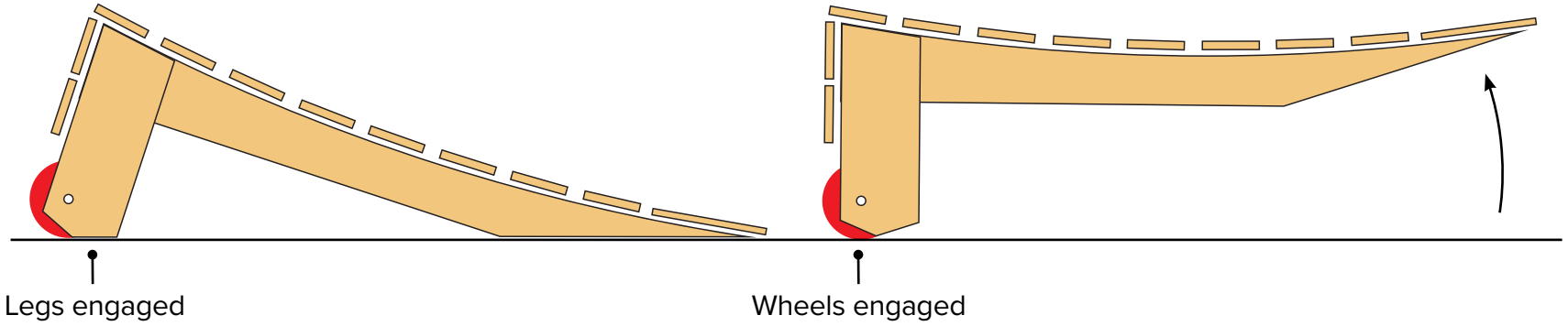


Step 4 - Optional Wheels

Adding wheels will make the kicker easier to move but it isn't necessary. Skip this step if you want.

How it works. By drilling a hole and cutting the corner off the leg, we can make it so the kicker doesn't move when placed on the ground. And when you lift one end, the wooden leg raises off the ground allowing the wheel to roll.

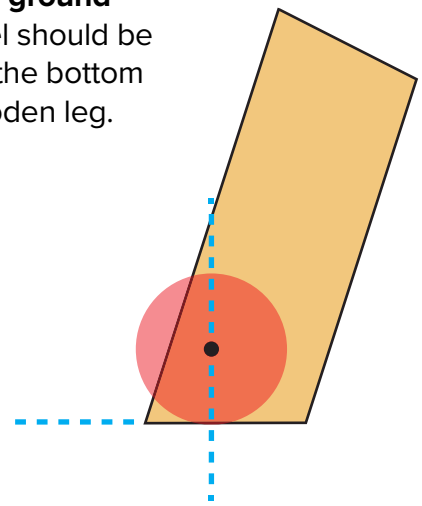
I'm using 200mm steel wheel with rubber tyre and 13mm axle bore.



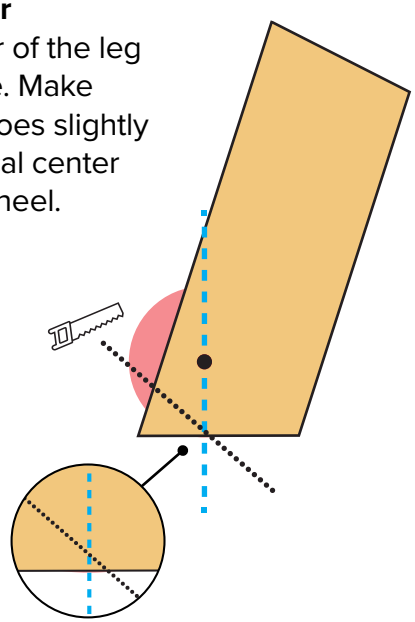
Step 4 - Optional Wheels (Continued)

First we need to prepare the legs by cutting the corners and drilling holes for the axle.
Then we will add the wheels after the kicker is screwed together.

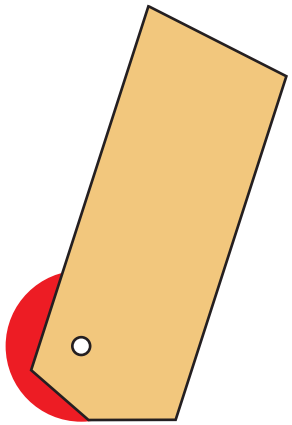
1. Level with ground
Your wheel should be level with the bottom of the wooden leg.



2. Cut the corner
Cut the corner of the leg off at an angle. Make sure the cut goes slightly past the vertical center point of the wheel.



3. Drill the hole
Drill a 13mm hole in the wood for your axle.



Hot Tip! The easiest way to get both holes in the same place is to stack both legs together to drill them at the same time.

Step 5 - Screw It Together

1. Attach the legs to the curved supports

Useing four 75mm screws for each side, screw the legs to the curved supports.

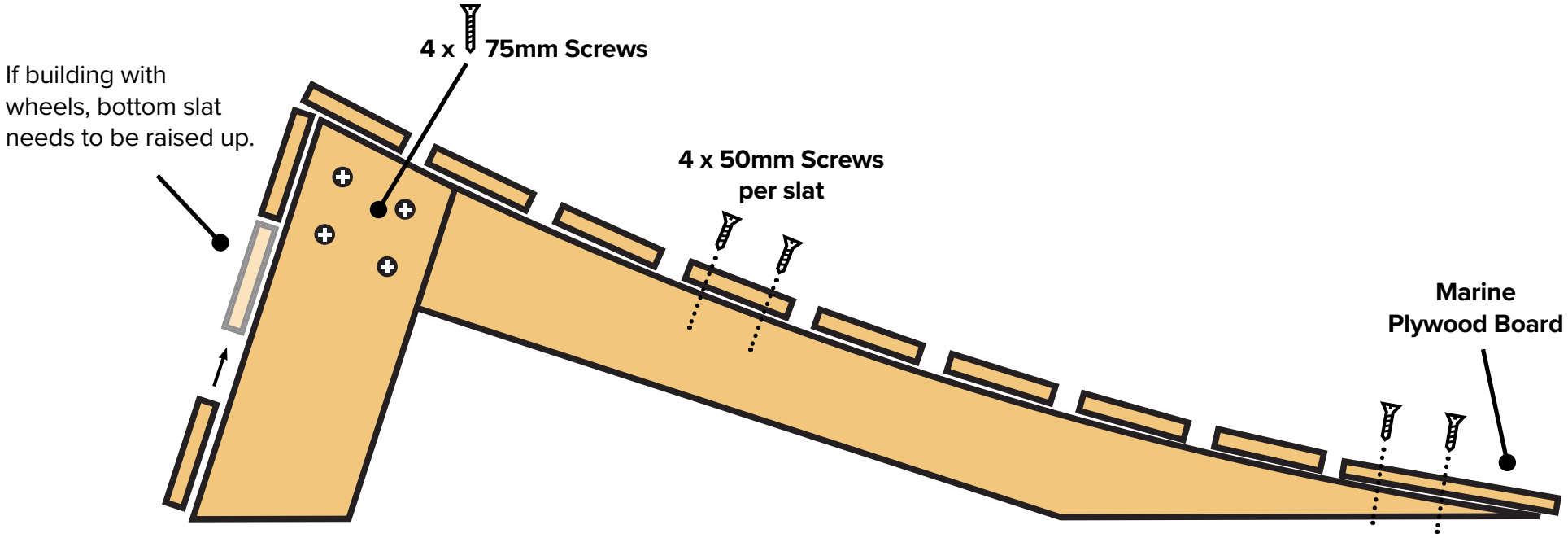
Legs should go on the outside for better stability.

2. Screw down the decking slats

Useing four 50mm screws per slat (two on each side), screw the riding surface slats to the curved support.

3. Screw down the marine ply

For a smoother start of the jump, attach the marine plywood board.

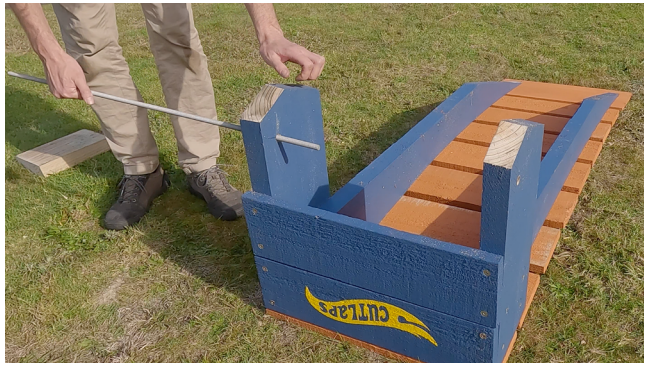


Remember to drill a pilot hole to guide the screw and stop the wood from splitting.

Step 6 - Add The Wheels

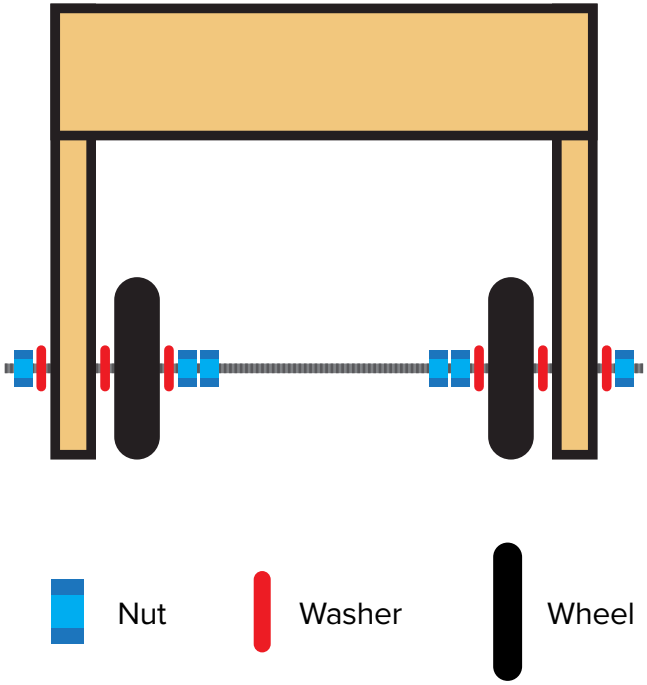
1. Threaded Rod

Slide the threaded rod through one hole and add nuts, washers and wheels.



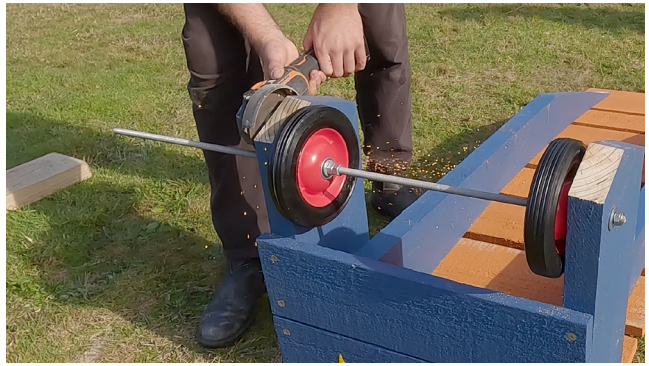
2. Correct Order

See diagram below for the correct order of parts.



3. Cut Extra Rod

See Use a grinder to cut the extra threaded rod.



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Step 7 - Send It!