

RYOBI NATION

DIY Pull Up Bar

by Homemade Modern

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This DIY Pull up bar doesn't need a doorway and can serve as a work out station for additional exercises. It is made from 2x4s, 2x6s, $\frac{3}{4}$ " plywood and some iron pipe fittings. I was very careful to make sure that the structure was securely fastened to the wall to avoid injury. I consult a personal trainer, fitness expert, and doctor attempting any sort of fitness activity.

PROJECT INFORMATION

Difficulty: Easy

Categories: Recreation, Other

TOOLS USED

18V ONE+™ 5 IN. RANDOM ORBIT SANDER

LED WHOLE STUD DETECTOR

18V ONE+™ BRUSHLESS 7-1/4 IN. CIRCULAR SAW

18V ONE+ HP COMPACT BRUSHLESS 1/2" DRILL/DRIVER KIT

MATERIALS USED

5.5" SCREWS

3.5" SCREWS

CONSTRUCTION ADHESIVE

IRON PIPE FITTINGS

3/4 PLYWOOD

2X4

2X6

PROJECT STEPS

STEP: 1

1. Cut the 2x6 and 2x4s I measured the wall and then used my circular saw to cut a 2x6 to that same length. My walls are about 9 feet tall so I used a 10-foot 2x6. I then cut some pieces of 2x4 so that combined they are the same length as the 2x6.

STEP: 2



2. Cut the plywood I used my circular saw to cut four triangular pieces of $\frac{3}{4}$ " plywood.

STEP: 3



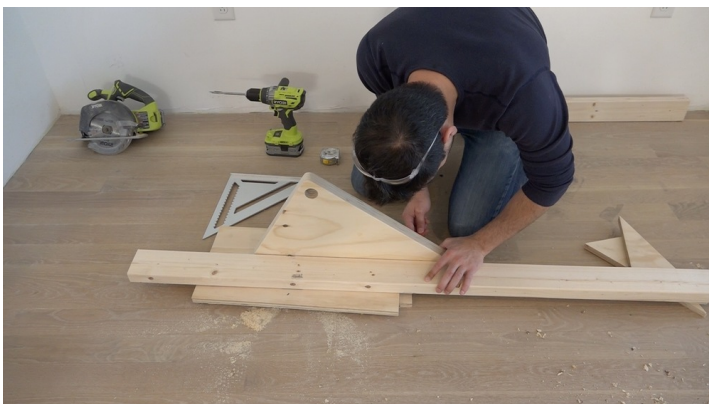
3. Glue the plywood together I glued the plywood triangles together to create two triangles that are about 1.5" thick.

STEP: 4

4. Drill holes in the triangles I tried a 1.25" diameter wood dowel for the bar but it was too weak. $\frac{3}{4}$ " diameter steel pipe works well with but I prefer wood. I found a 1.5" diameter maple dowel 36" long and used that for my chin up bar. I drilled 1" diameter holes to accommodate $\frac{1}{2}$ " iron pipes 9" long on the longest side of the triangle.

STEP: 5

5. Sand the triangles I used my orbital sander to sand down the edges for the triangles.

STEP: 6

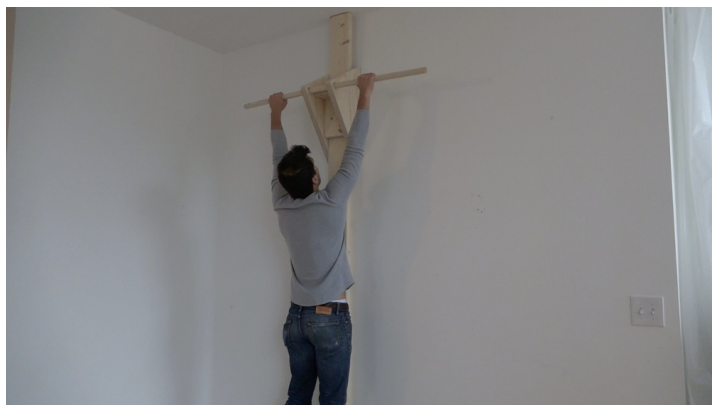
6. Drill matching holes in the 2x4s I used the triangles to mark hole locations on the sides of the 2x4s. I then drilled 1" diameter holes in the 2x4s. The holes should be right along the edge and come close to busting through the side of the 2x4 leaving $\frac{1}{2}$ " of wood on the other side.

STEP: 7

7. Secure the 2x4s and 2x6s to the wall. I used a stud finder to identify the center of the studs in my wall. I designed my house so I know that the walls are strong and have double top plates. If I were less confident in the structure I would have used a horizontal 2x6 at the top of the wall and made sure that the vertical 2x6 is tied into at least 3 studs. I used 3.5" long screws to secure the 2x4s to the wall and 5.5" long screws to secure the 2x6s. These long screws went through the 2x6, the 2x4s, the gypsum board and into the stud in the wall.

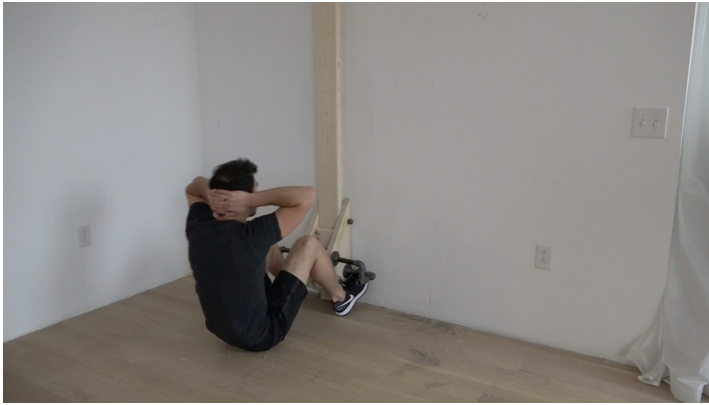
STEP: 8

8. Assemble the brackets I used construction adhesive and 3.5" long screws to assemble the brackets around a scrap piece of 2x6. I cut short pieces of 2x6 to use as spacers.

STEP: 9

9. Install and test I used 9" long $\frac{1}{2}$ " diameter steel pips with caps to secure the bracket to the vertical structure. I tested a $1 \frac{1}{4}$ " diameter dowel but it was not strong enough. I also tried $\frac{3}{4}$ " steel pipe. I heard that it is possible for the threads to wear out over time so I am not sure I want to trust them. The first bracket I made only held the bar about 10" from the wall and my knees would brush against the wall when doing pull ups. I made a 2nd bracket that holds a 1.2" diameter maple dowel 36" long about 16" from the wall. I straight steel pipe with no threaded joints would provide more security but I trust this particular dowel for my 175 lbs.

STEP: 10



10. Other experiments. I am experimenting with other exercise applications that could work for this system so follow me on Instagram and YouTube for project updates.