

A Slot Car Track Space Saver

By Bill Sommerville

If I have one passion since I was born, that would be about cars. To me with a few other inventions, nothing provides the freedom of a good car with a good drive. If my car sneezes, I sneeze. When others conclude a car as just a tool for their own direction, I fathom my car as an extension of myself. Now that does not mean I must go out there and get the most expensive, biggest and best (if it exists). If experience has taught me, not all appears as it seems and the devil is in the details. So I appreciate a person (male or female) who takes care of their vehicle (no matter what kind it is). It says a lot about them, especially they care enough to be safe on the road for themselves and others as well.

Recently, I picked up a hobby that I use to have as a kid. When I was a much younger, slot cars was my thang. I would race with the best of them having fun for just 25-50 cents a half hour. Win lose or draw, everyone had fun. So when I happen to see on the Web that not only had it made a comeback, but was thriving, I decided to check it out. Naturally I was hooked and before I knew it I was several cars in and racing with a great bunch of guys every Friday.

In my kid days the scale was 1/24. Now 1/32 rule with 1/46 behind that. And the speeds are incredible. With motors cracking out over 50,000 rpm's, no wonder you need magnets and weights to keep them on the track. I recommend all fathers get their kids into this hobby. They will spend a lot of time working on them and learning. They won't be with a gang getting into trouble. They will be at home in their room, working on their cars for the next race. Even though the tools and parts they have may cost you an arm and a toe or two, it will be worth it.

There are many adults who cherish it as a hobby as well. It is a great hobby for all ages and what you learn from all the advancements is worth it alone. As for me I dove right into it. There are many that will help you in getting started. As with anything else, there are many ways in doing things, but the beauty of it is that you are your own boss and make the final decisions on how you want your car to handle.

I have just about everything I need. My wife is happy cause she knows where I am. Now the thought came to me about having a track of my own. It came up in a few discussions with others at the speed track and I decided to build one. Not as elaborate as at the track center, but just a home style one to test cars on. As with many others out there space at home can be an issue and I am not the exception. So I came up with a track that could be suspended and moved out of the way when required.

After performing some measurements and working the figures I came up with the following:

Test Track:

Long oval track

On a 4' x 8' OSB board

With 4 rope pulley's (each with a capacity of 110 lbs. 1-1/2" zinc coated)

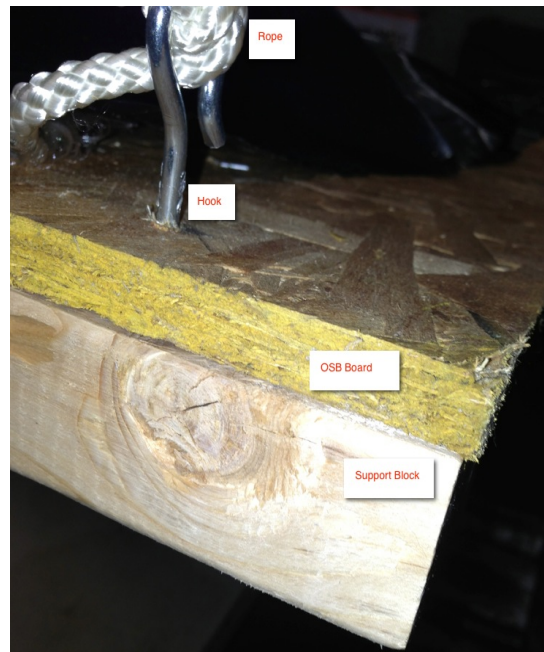
With 12 crowned bolt hooks (#6 each with a capacity of 207 lbs. zinc coated)

2 6x1/4 bolts with flat washers and nuts

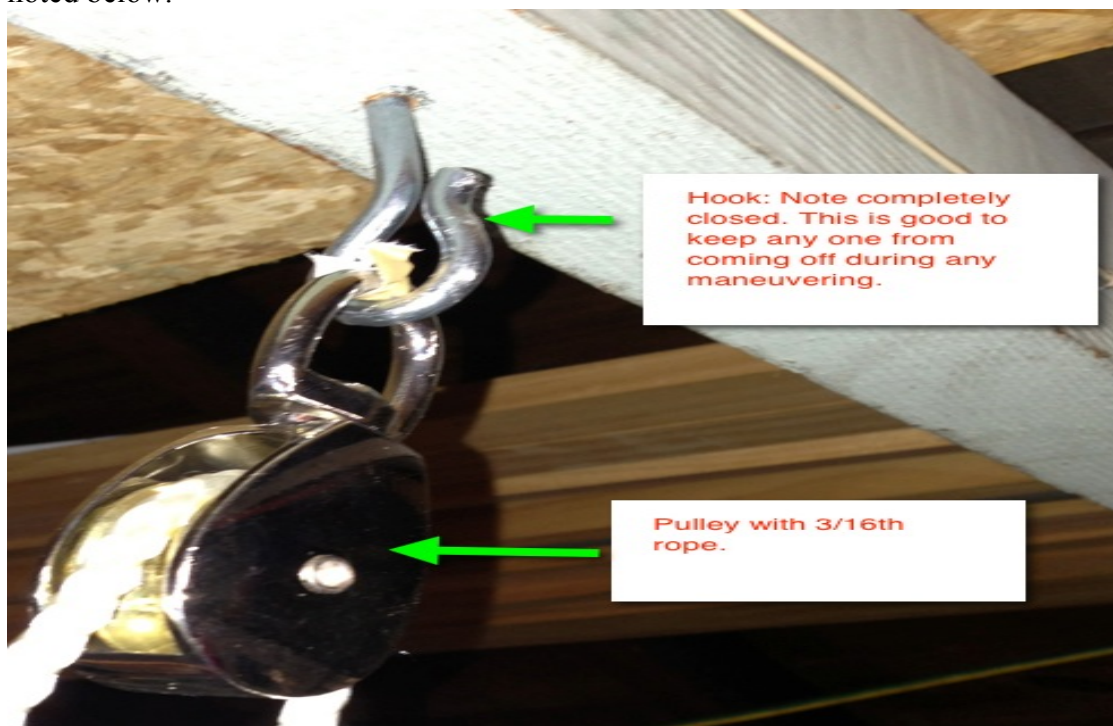
2-nylon racket tie down straps (Recommended only, see Fig 1 Recommend)

With 30' 3/16in braided Nylon Polypropylene rope

First, I purchased the track I wanted. Again nothing fancy, so I ended up with a Carrera Evolution track and purchased 4 extra straight tracks along with it. This track can handle 1/24 and 1/32 scale cars that make it flexible since I have both. Next I laid out the track and marked a few areas where I wanted to fasten it to the OSB Board. After that, I broke down the track and set it to the side. I framed the board by air nailing 2 2"x4"x72" and 2 2"x4"x36" (3 inches from the edge) wood boards to the back of the OSB Board to giving it strength for the lift. I drilled four holes (one in each corner) in the OSB Board and screwed in the 4 hooks into 4 2"x4"x6" blocks to spread out the weight and act as support on the lift of the OSB Board and to attached the rope as noted to the right.

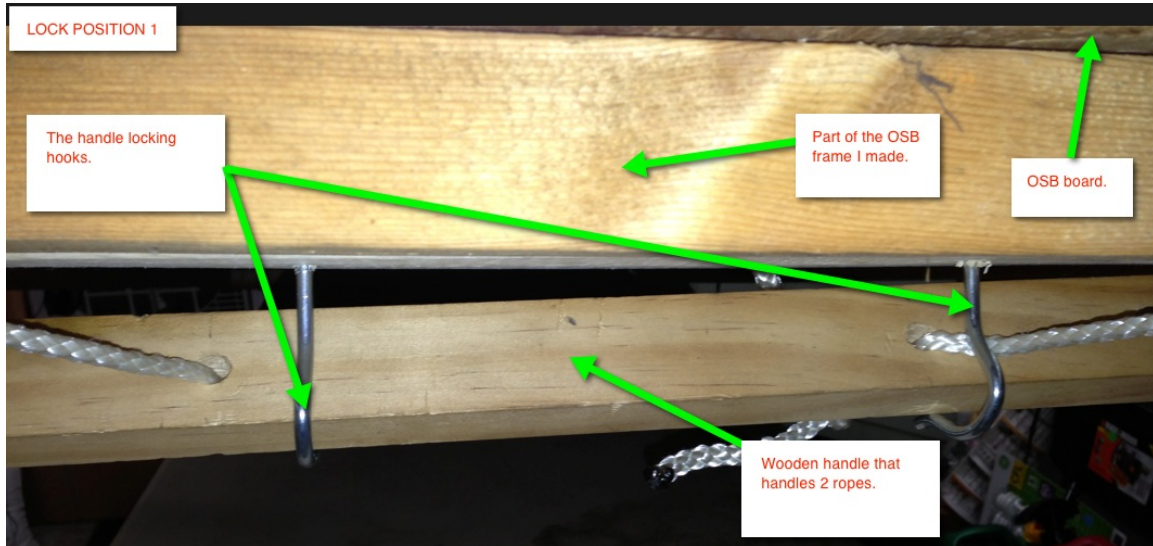


After achieving this, I found my markings for the hooks on the beams that cross over in my garage. I drilled the holes for the hooks on both ends and attached the pulleys as noted below.

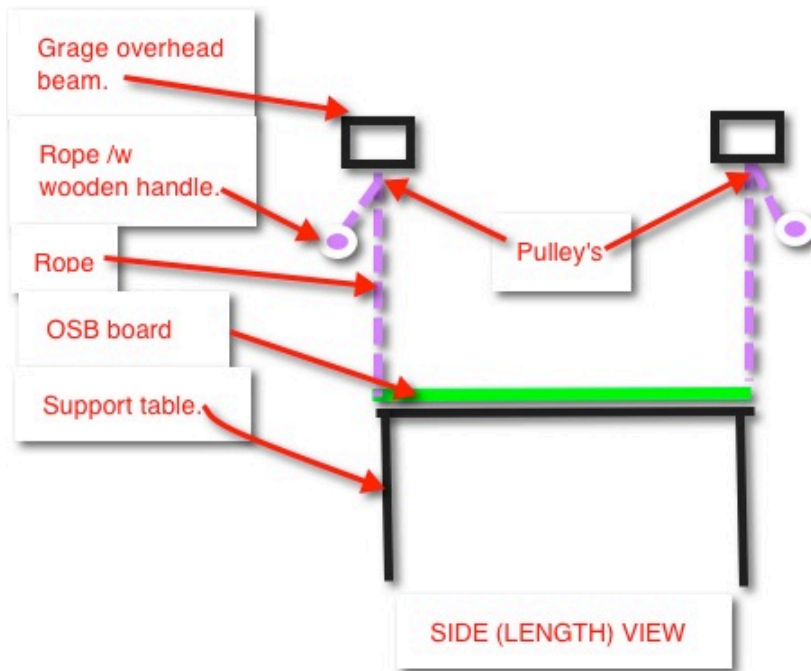


After running the rope through the pulley's and insuring they were tied down to the hooks of the board, I made two wooden handles and ran the ropes through them to control the assent and decent in an even pattern. Next, I drilled holes in the frame of the

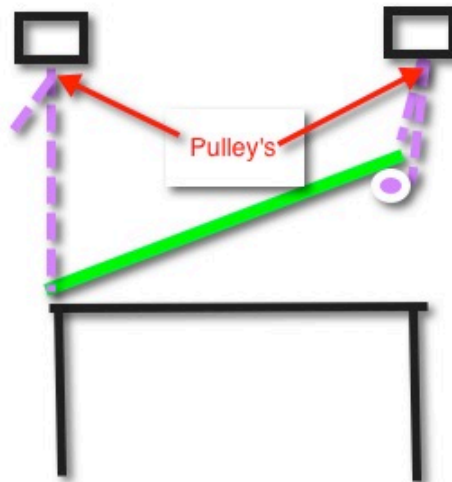
OSB Board frame I made that is attached under the OSB Board and screwed in additional hooks to act as handle locks once I got the OSB Board in the air. This area I call Lock Position 1.



Now I drilled two more holes near the center of the board for the Lock Position 2. When the OSB board is raised to its storage position, the handles will be in Lock Position 2. I designed this for one person to operate, so the theory is noted in the graphics below:

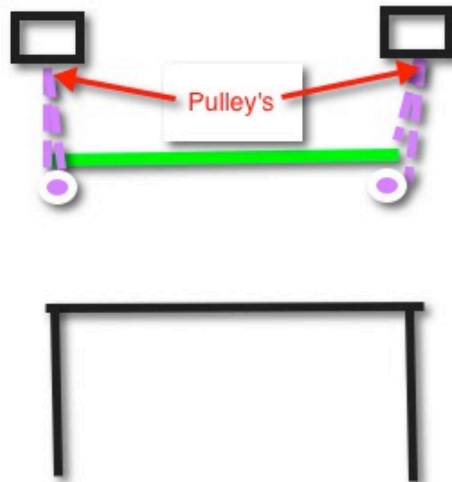


STEP 1



Pull handle that will lift one end of the OSB board off of the support table to LOCK POSITION 1

STEP 2



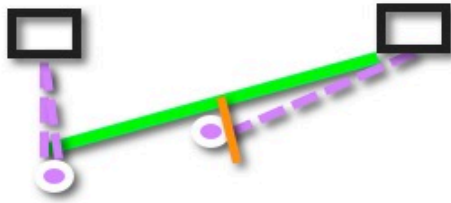
Repeat the same process for the other side of the board to the point where the board is suspended, off the support table, and both handles are in LOCK POSITION 1

STEP 3



Remove the support table. Push your 6" bolts from the bottom of the OSB board and attach the flat washer and nuts to them. You just need to turn the nuts a few turns. Let them hang.

STEP 4



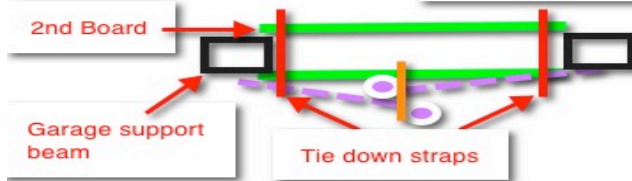
Now go to the side of the OSB board where you first started and take the handle from the LOCK POSITION 1 to LOCK POSITION 2.

STEP 5



Repeat the process for the other side of the OSB board taking the handle to LOCK POSITION 2. This is your board's storage position.

Fig 1 RECOMMENDED



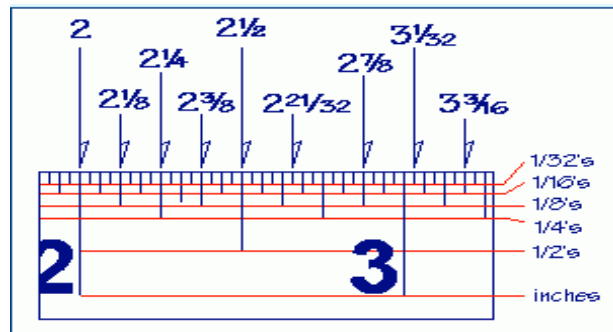
If you have the ability, I would advise a second OSB board placed above the support beam. Use 2 inch ratchet tie down straps to secure the bottom board to the top one. In doing this the wooden handles may become loose and fall. If this happens roll them up and put in LOCK POSITION 1. This will act as a safety lock.

Once I tested this process and was confident I could go from operational position (OSG Board down on the support table) to storage position (tied to second board in the air), I began setting up the slot car track on the OSG Board.



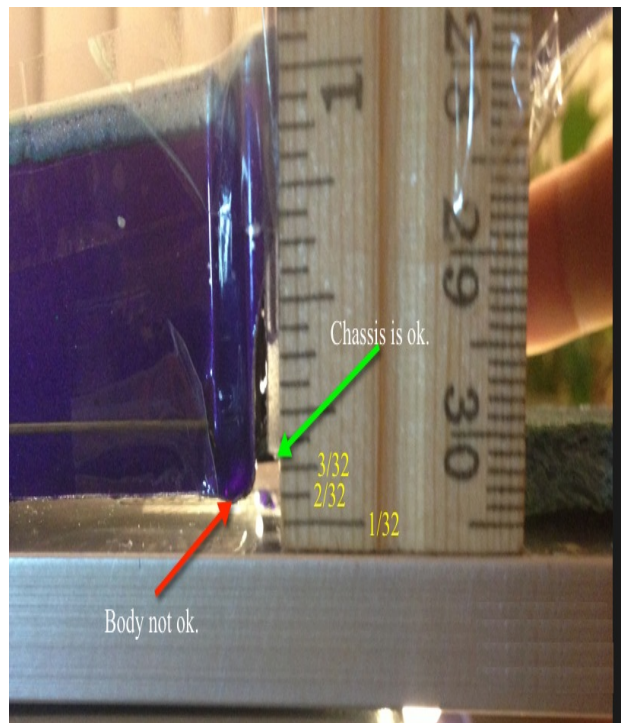
After I was satisfied with the track final position on the OSG Board, I added some support pins that would keep it on the now called Track Board in place. As I stated before, I was not after anything fancy, just a test track before I do any serious modification to the slot car.

WARNING: Now for you pro guys. If you are using third vendor type magnets for better control over your cars, they will not run on these type of tracks well if at all. The magnets will attach itself to the metal portion of the track and short out the track system. A track for testing new and non-modified cars should be fine. After

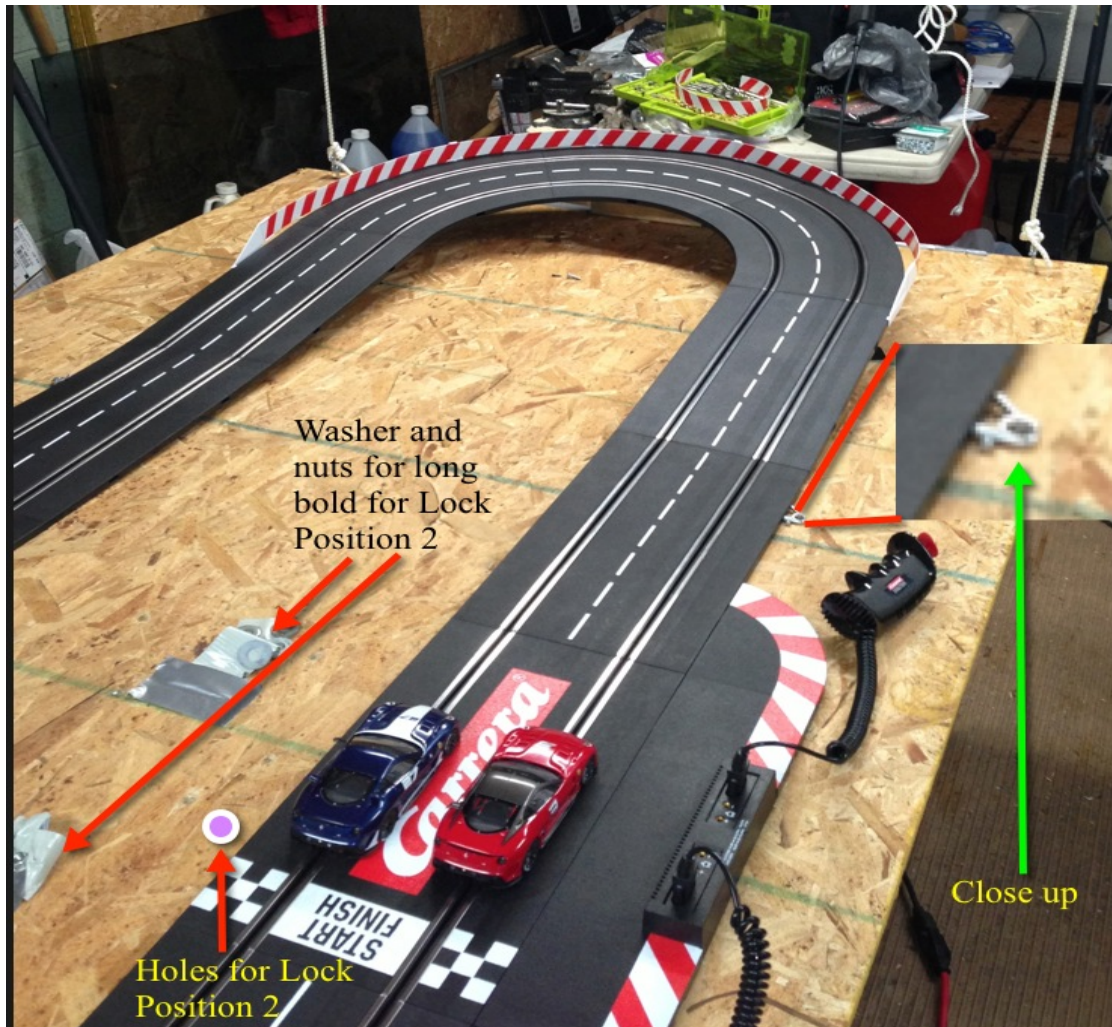


your modifications, if you have anything less than 3/32 clearance under your cars, you run the risk of damage to your electrical track system if not flipping your circuit switch all together. I recommend getting or making a slot car platform and measuring the clearance. With all the rules out there, I go with my neighborhood slot car center requirements. Currently they require a minimum of 3/32 clearances from the top of the platform to the bottom of the chassis of the slot car. Based upon this, I use the following as noted----->

The picture above shows the track laid out on the board in a regular long oval with a small bank on one end of the curve and a flat one at the other. I did not trust the bridge supports that came in the track kit, therefore I built my own just using a short block 2 by 4 and nailing it in the position I want for the type of bank I desired. I did use the small bridge supports in the rise portion of the bank. They seemed sufficient in this area. If you also notice I center the track as much as possible for a balance lift when the time comes. To insure that the track remains centered, I attached the track to the board using mounting



pins as noted in the picture below.



Now that the track is mounted, I insure that I have the washers and nuts for the long bolts



in position attached to duck tape to keep from losing when moving the track board to its storage position. After testing a few unmodified cars, I began to prepare to put the Track Board (previous name the OSB Board) in its storage position using the steps graphics I showed earlier. In preparation, I cover the whole track in plastic as shown to the left. Any type of plastic will do as you are just trying to keep dirt and

dust off the track.

Next. I start the lift process. Again as noted in my steps I lift one end to Lock Position 1 as show in the picture to the right. The handles are a great stablizer as you pull down towards Lock Position 1 and works quite smoothly. As you can see how important it was to secure the track to the board. Going to Lock Position 1 alone would have had the track sliding right off the board. In addition, the plastic I have covering the track opens in the center where I can get to the flat washers and nuts for Lock Position 2. Even though the hooks are addiquate. I strongly recommend closing them completely after you have tied the knots you wish. I used a military D style knot but what

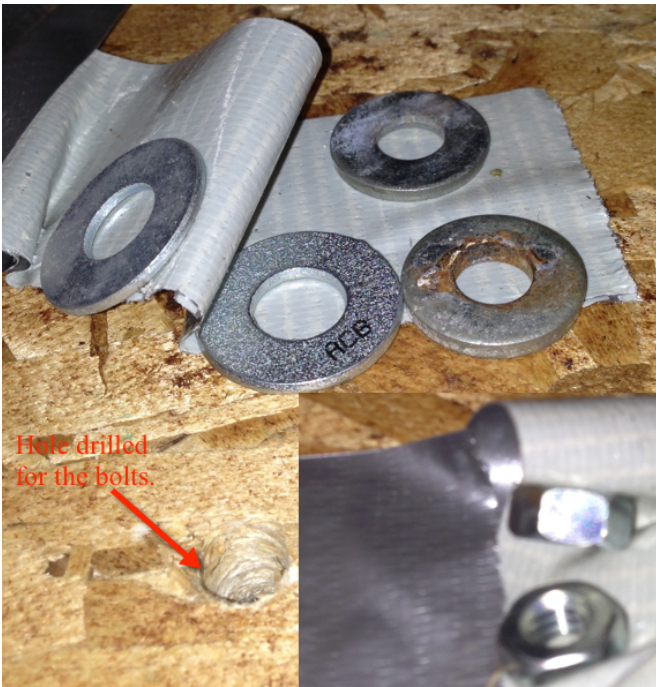


ever you use should do the trick. Now I proceed to the other end of the board to get it to Lock Position 1 as well. The Track Board is level with both ends in Lock Position 1 The support table fits within the frame I made to provide strenght to the Track Board thereby



when using the track, makes it level. When I first did this without the track attached, I left it in Lock Position 1 for a few days to insure everything was working and the weight was eveningly distributed. The support table must now be removed as going to Lock Position 2 is in the center of the board. I use a simple fold away table that you can get from any hardware or mass supply center. These tables always seem to come in handy and as with the track project itself, can be stowed away until required again. At this point in regards to the steps mentioned earlier, we have completed step 2 and entering

step 3 heading for the Lock Position 2 which will put the track board in the stowage position.



I turn over the plastic in the center of the board that exposes the washers and nuts that are attached to the duck tape. Taking the long bolts I push them through the holes that were drilled earlier from the bottom. I slip the flat washer and screw the nut on enough to cover the top of the nut itself. The bolts hang down to insure

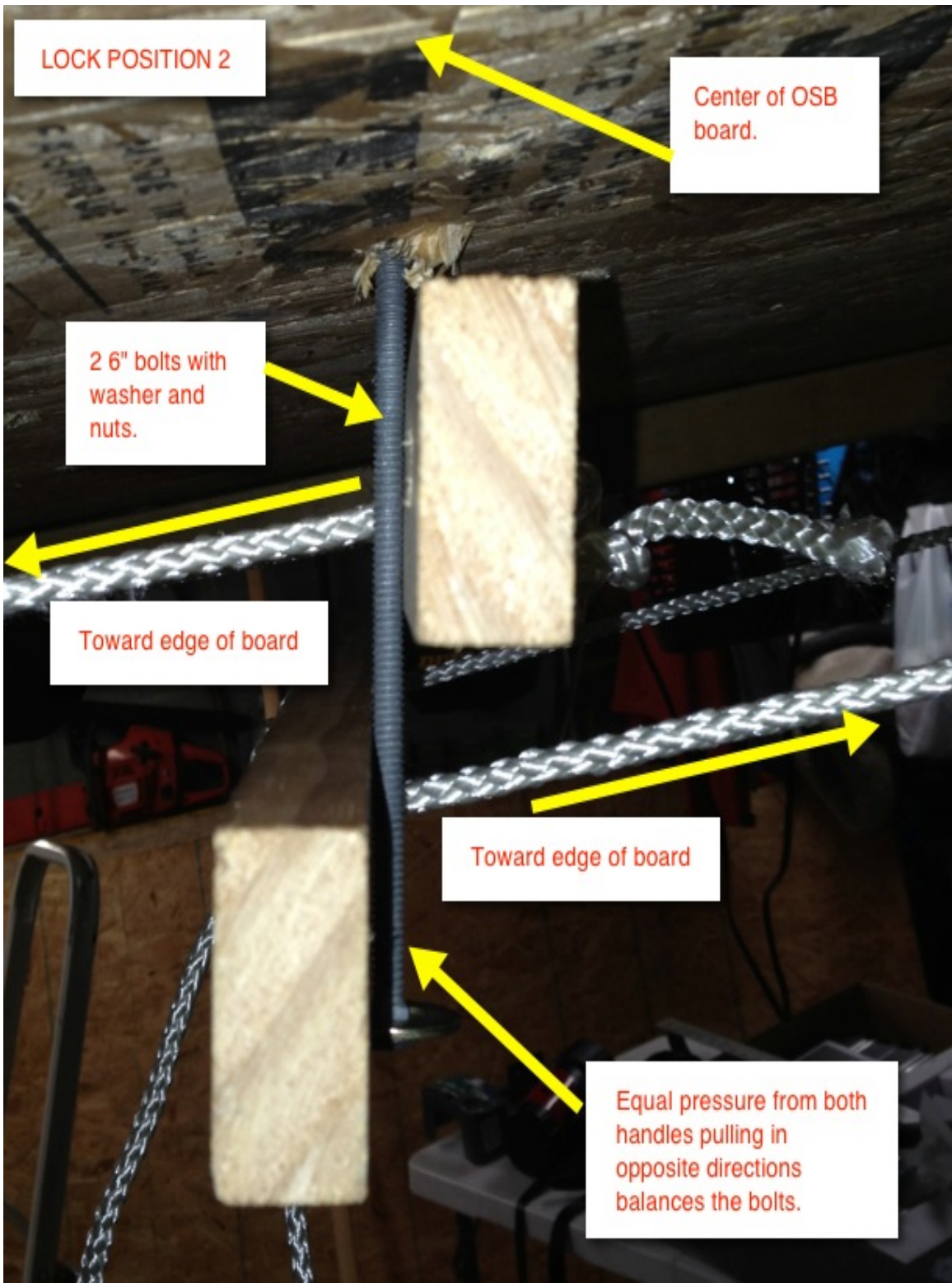


the handles will be able to hook themselves establishing Lock Position 2. Going back to the end I started with, I unhook the wooden handle from the Lock Position 1.

Now I push hard and move the handle to Lock Position 2 (step 4) as shown in the picture below. The bolts will angle but should become balance when the other handle is in the Lock Position 2 position as well. The ends of the bolts prevent slippage with the threads biting into the wood acting as a lock assisting in the stable position of the handle as I move to the next step (step 5).



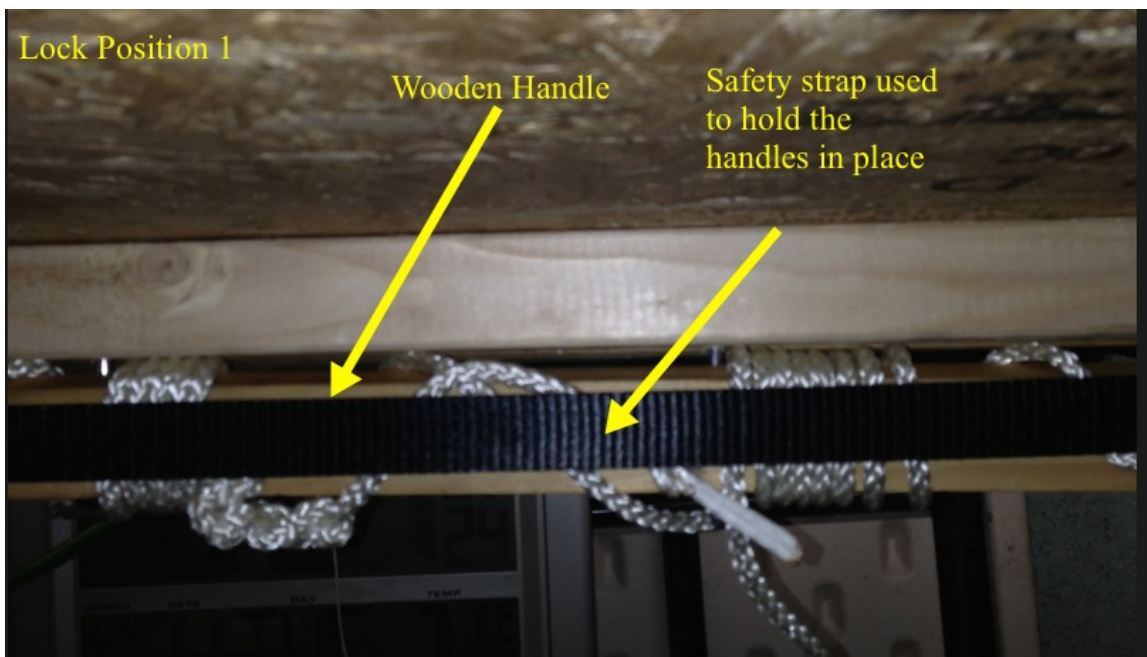
Going to the other end of the board, I repeat the process and get that handle to the Lock Position 2. Now the board is in its final stowage position, Lock Position 2 looks like as noted below:



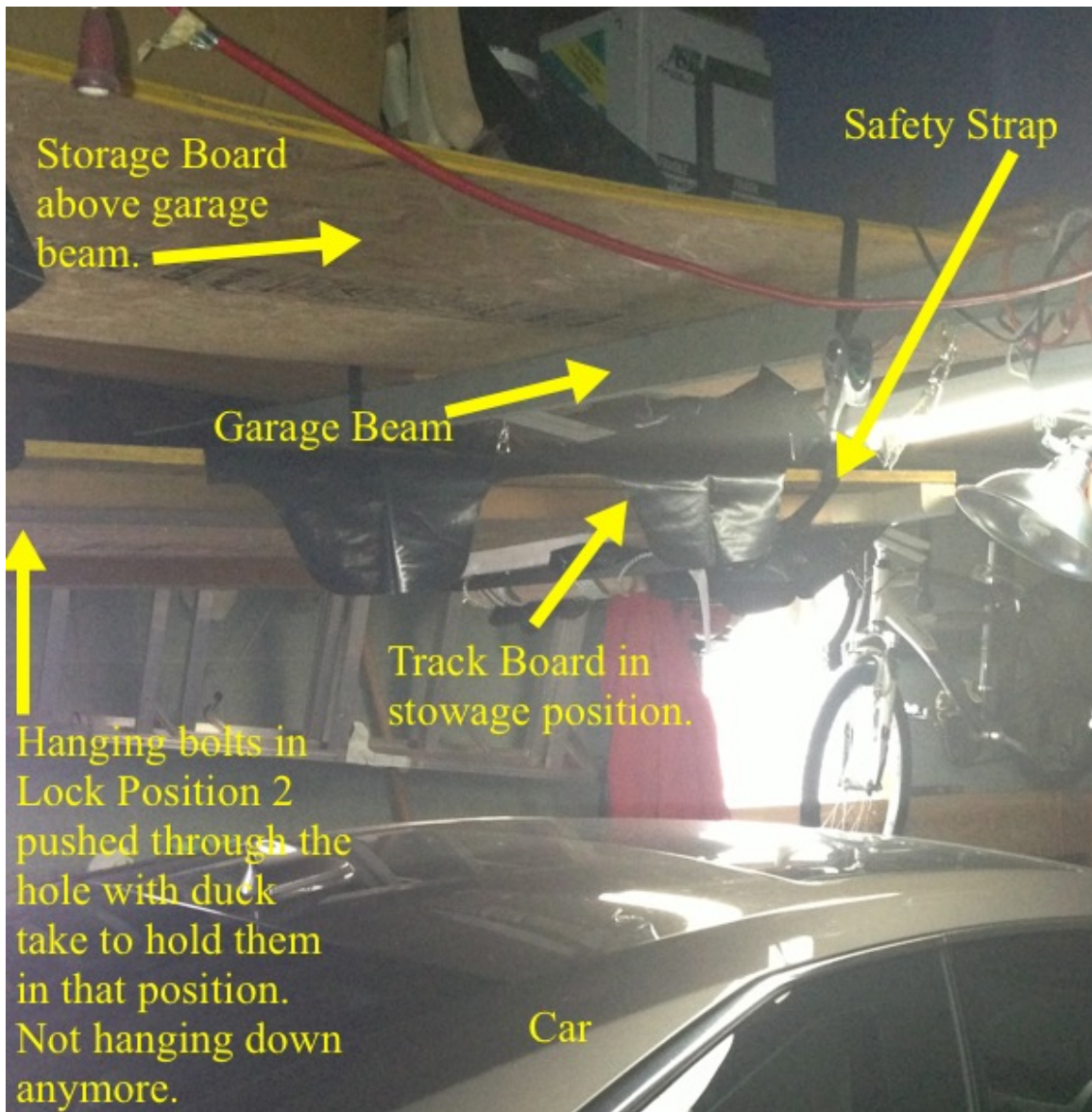
The weight of the Track Board provides the locking pressure in Lock Position 2. The opposite positions I put the handles from each side balances the pressure. In most cases this will be all that is required, but for those whom rather be extra cautious, safety straps can be used to strap the board to the beam or a second board that is placed above the



beam as noted in the recommendation graph on page 6. If you decide to use safty straps there is a posibility that the wooden handles in Lock Position 2 will become loose and drop from their position. If this happens I recommend that you turn each handle (wrapping the rope around the handle itself) till it is at Lock Position 1. Place the handle in the Lock Position 1 hooks. This acts as a back up lock. To further secure the handles, you can use the straps themselves as a securing mechanizum. This will leave the center bolts hanging down. If this becomes an issue when putting your car in the garage, I recommend using some duck tape and pushing the bolts to the up position and use the duck



tape to hold them there. One question that comes to mind is the weight. How did I know that the weight would be ok for the beam support. In truth I had a lot more on the board above the garage beam. I lighten the load on that board to compensate for the Track Board and frame support. Even though I have not weighed the whole board as of yet. I did perform some pleminary weighing of individual pieces and I estimate a total weight of between 75-95 lbs.



Summary

I wrote this for those whom wanted a track but like me lacked the space of a permanent one. I did not expect anyone to do it exactly like I did. I was providing a path to your own ideas to complete this project to your satisfaction. My goal was to build the Track Board and yet be able to park my car in the same space. Of course in my pre-measurements I was concern about the distance between the top of the car and the bottom of the track. As you can see I accomplished this goal with inches to spare. Even with my grage floor which is covered in OSG Board (1-3/4 thick) and padding which I worked in two inches into my measurements. I put the Track Board in the operational and storage position several times. I could do it on a regular bases between 5-7 minutes and that was with pulling the car in and out of the garage in a non-rush pace. Even though you may use your own way and style to accomplish the same feat, a movable simple track that does not take up space in a permanent fashion is a intreging idea. Who knows, this may inspire others out there to build even bigger track systems that can be lifered, swung or slided out of the way for other uses of the space in their homes.