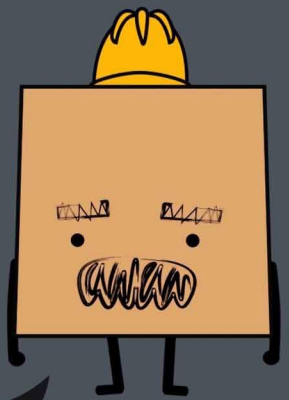
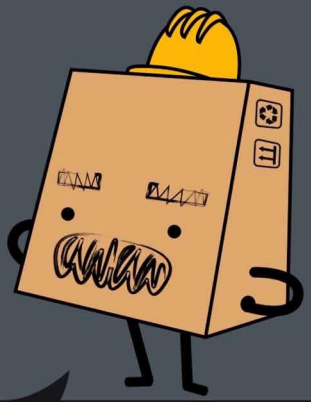
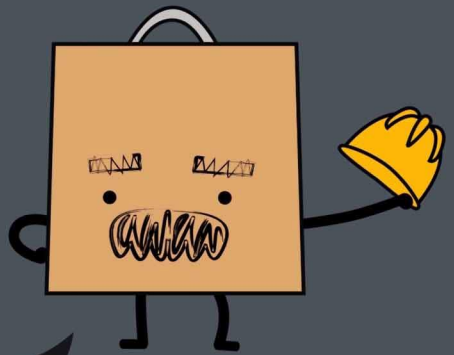
00. Introduction



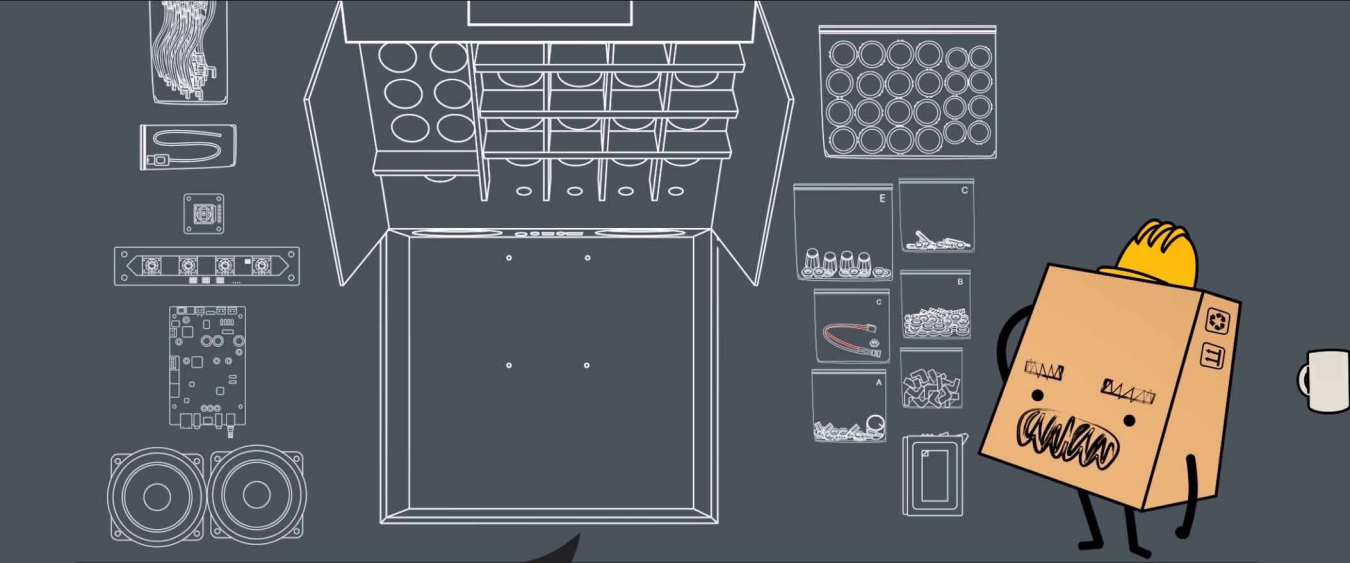
Howdy! My names Mac and I'm gonna be showing you how to put together your Beatbox here.



It can take as long or as short as you'd like to assemble it. Just make sure to be patient with yourself and the process.

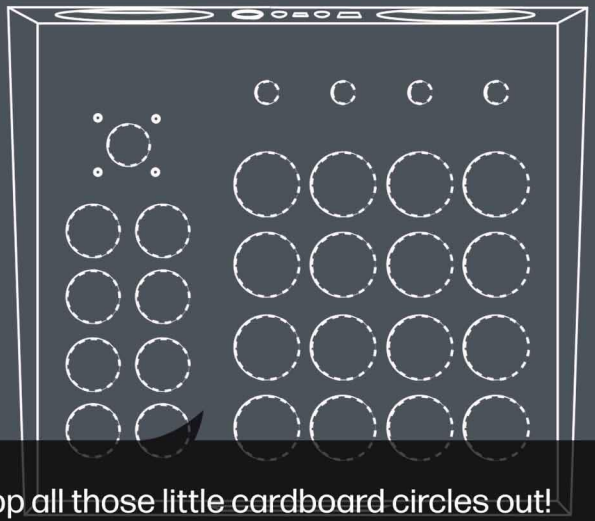


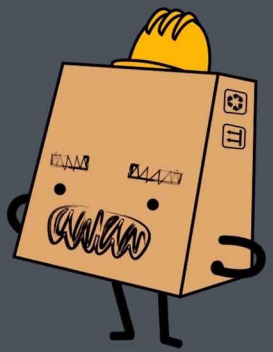
I got my hard hat on and I'm ready to get to work! Let's get this thing built.



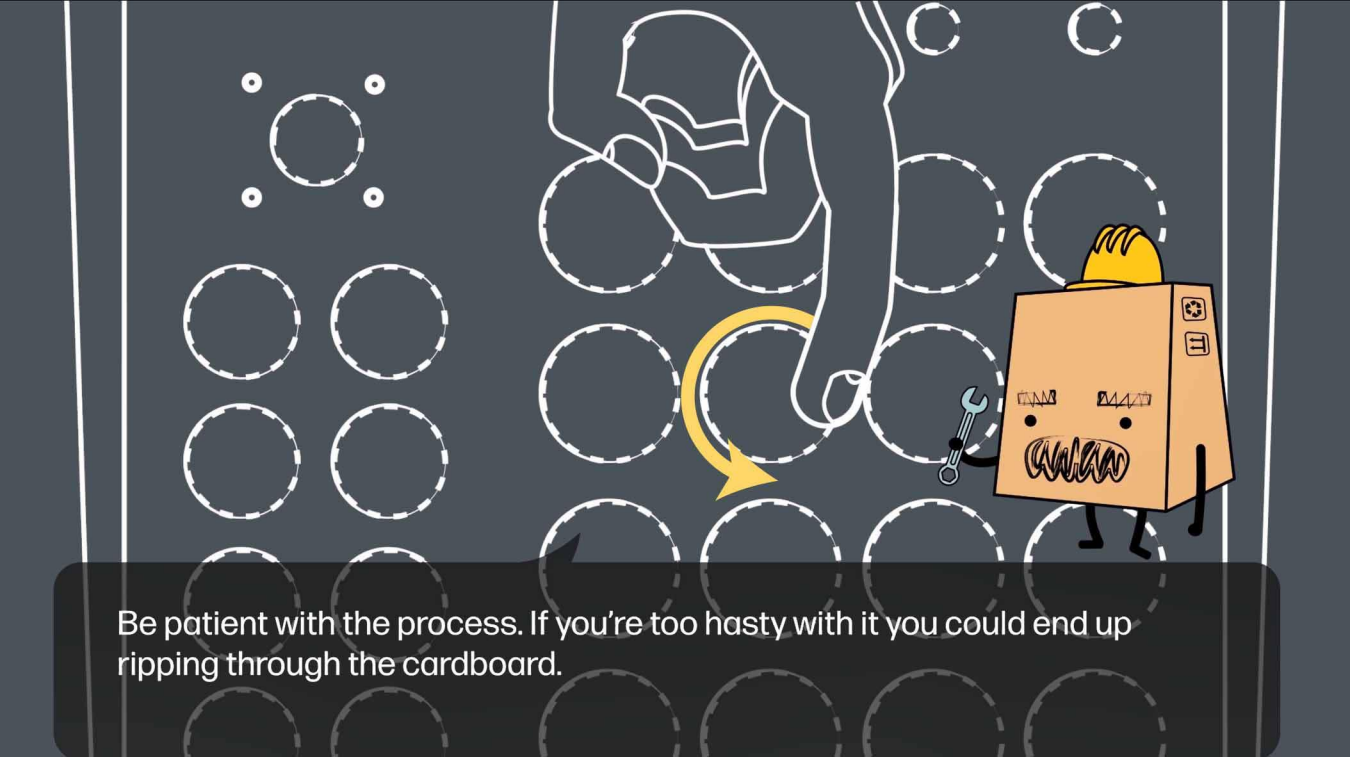
Before we get started we need to go over some safety protocols. Make sure your workspace is clean - that means dispose of any spare liquids - then go ahead and take everything out of the box and arrange it neatly and in sight.

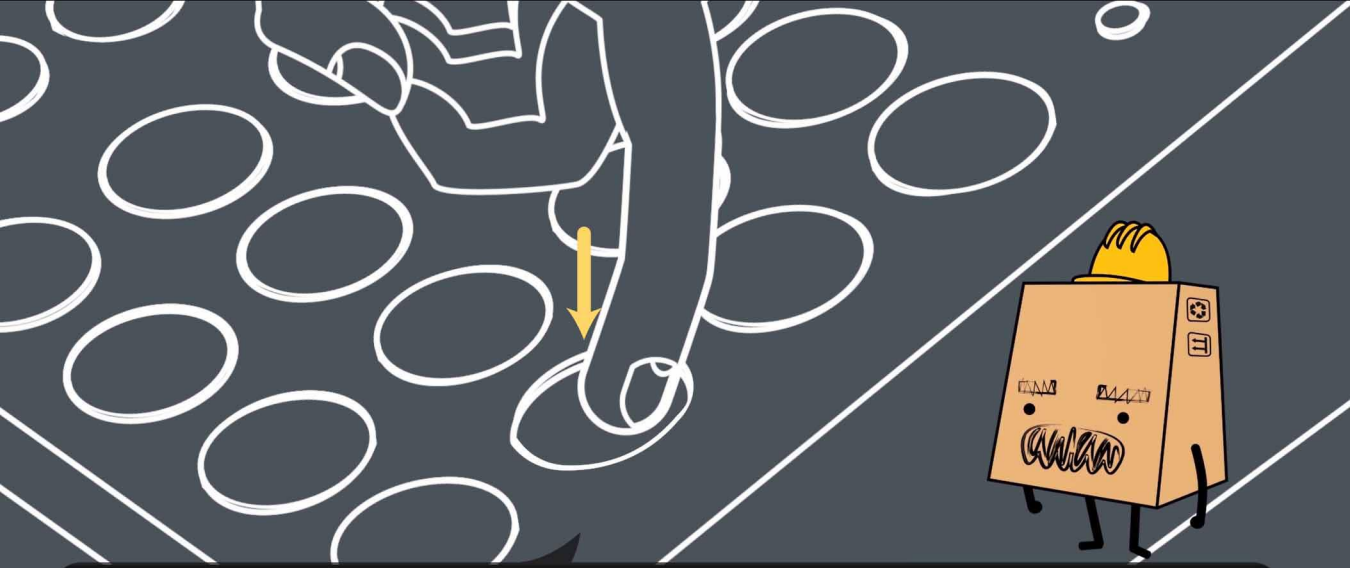
01. First Steps



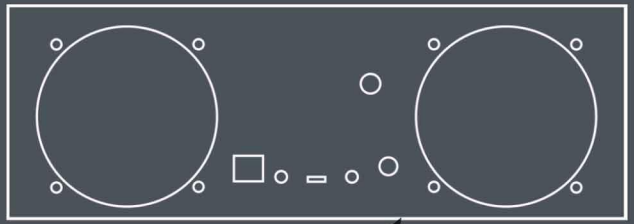


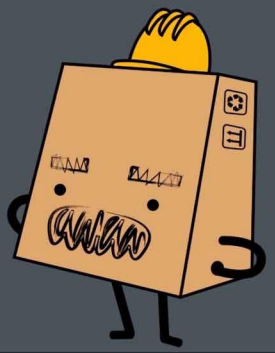
Now it's time to pop all those little cardboard circles out!


Be patient with the process. If you're too hasty with it you could end up ripping through the cardboard.

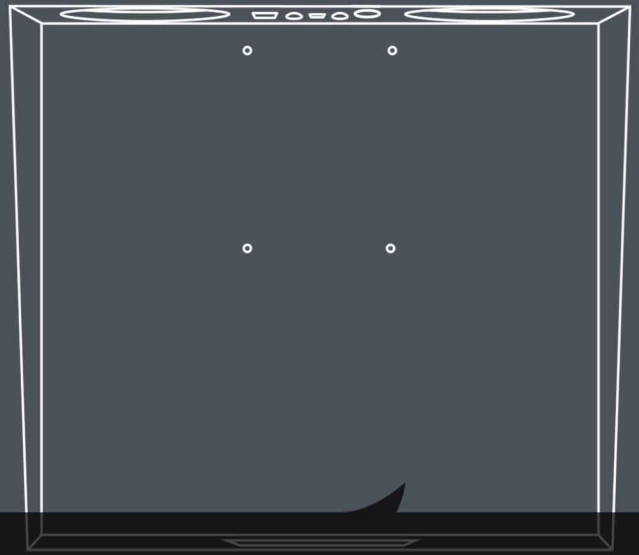


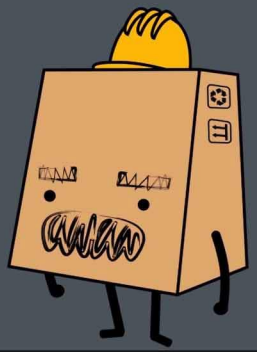
Gently use your fingers to press along the perforated edges of each hole until you can push them all the way through. You may need to gently push from inside the box.



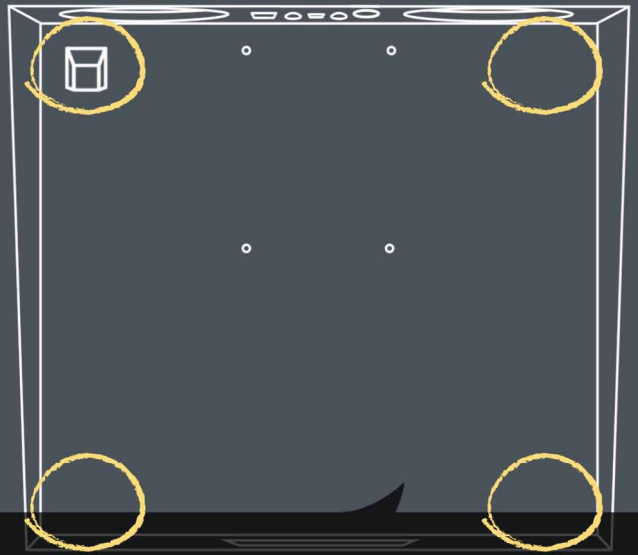


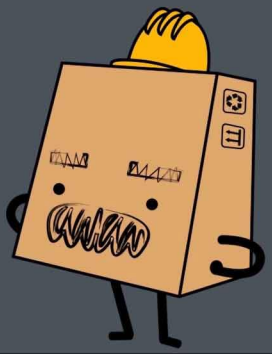
Time to give your BeatBox some footing!



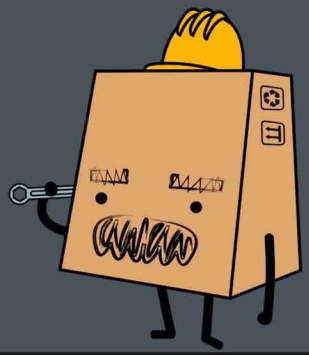


Flip the box all the way over.



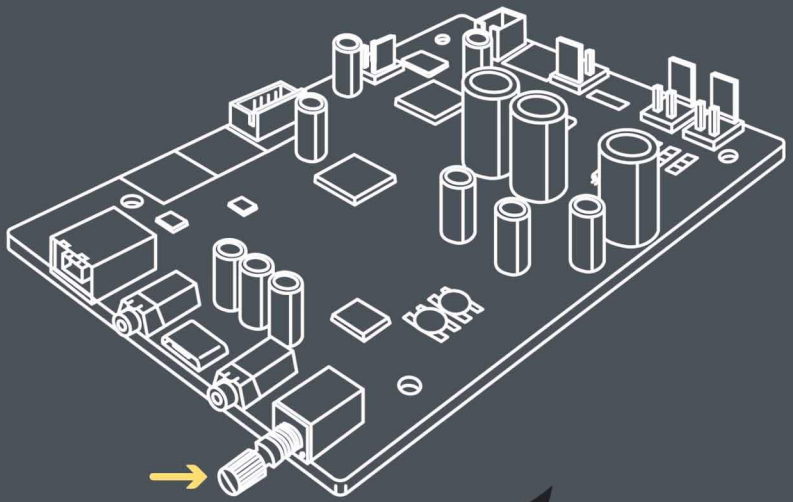


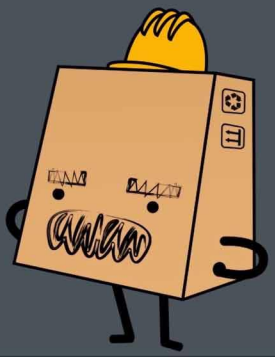
Grab the little square with the four feet stuck on it like some stickers. Peel off each foot and stick one on to each of the four corners of the bottom of the box.



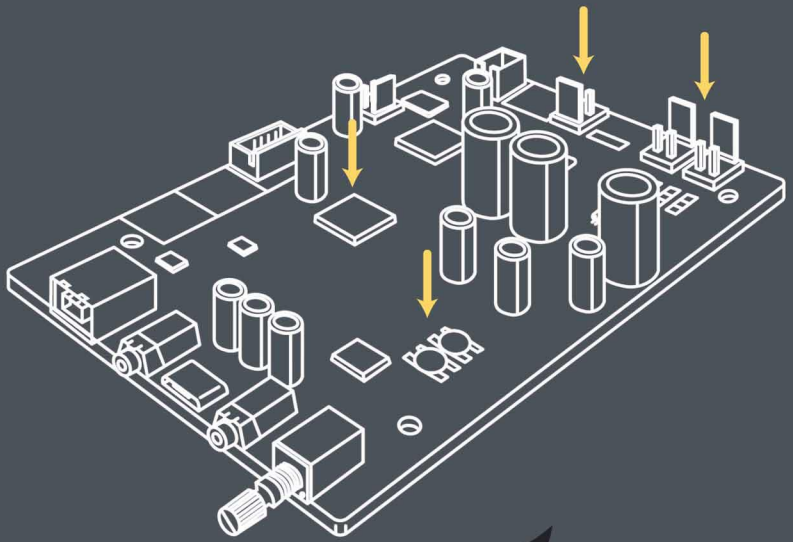
You might want to use a finger to hold each one down for a couple of seconds to make sure they're really on there before moving on to the next corner.

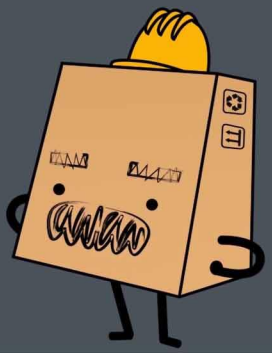
02. Amplifier Board



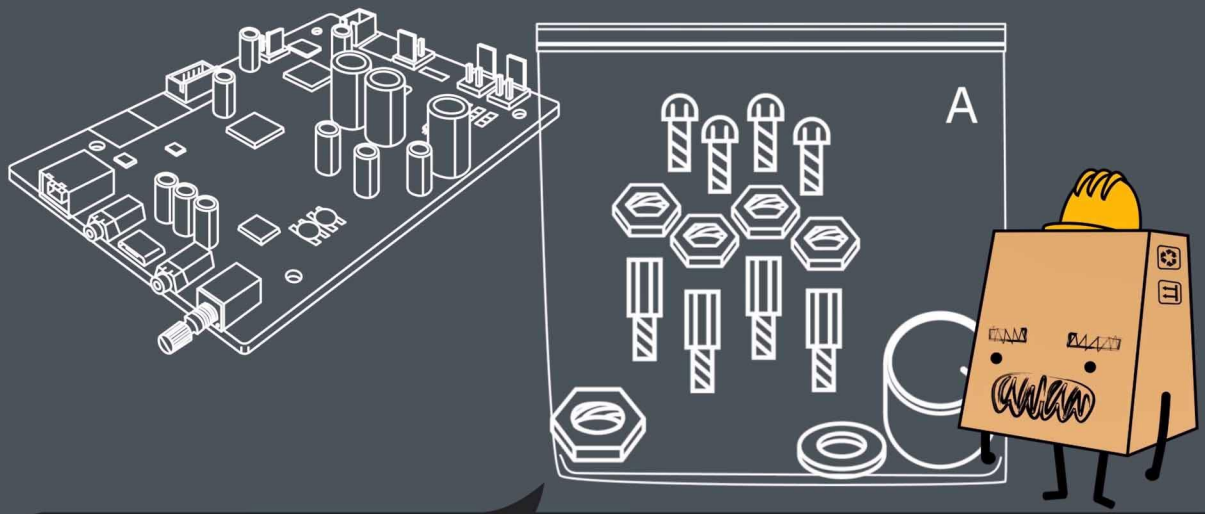


Now, get your amplifier board. It's the one that's got the knob stickin' out the side of it.

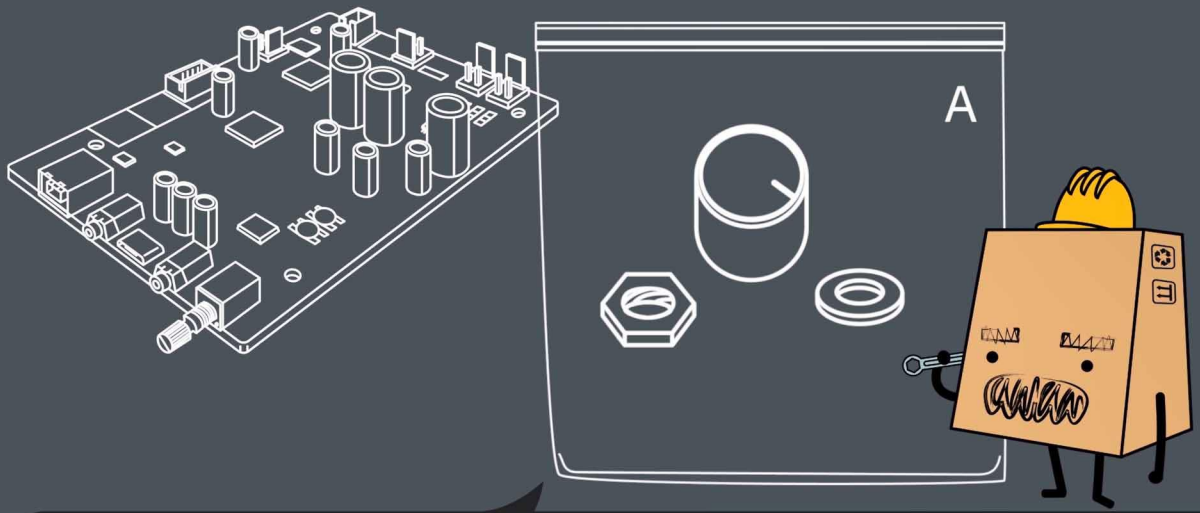




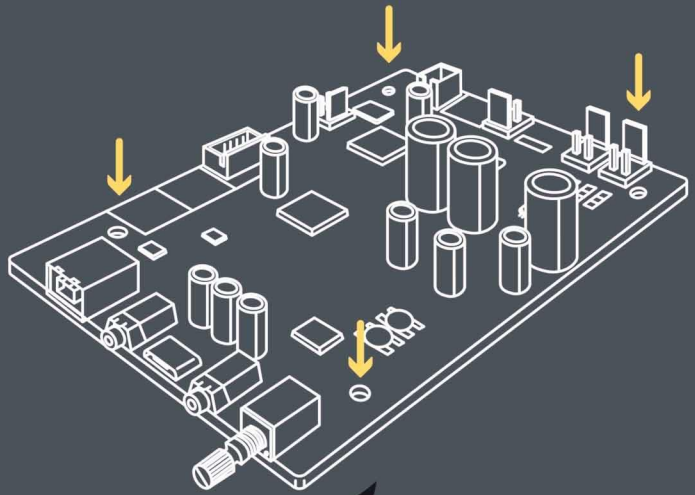
It's got a 5-way USB hub, a USB sound card, a 20w*2 class D amplifier, and a battery charging module. Whew!

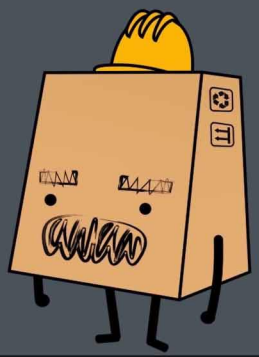


You're also gonna need to grab Bag A. It holds some screws, nuts, and M3 standoffs. The M3 standoffs are hexagonal and a smidgen bigger than those M2s that'll come in handy later.

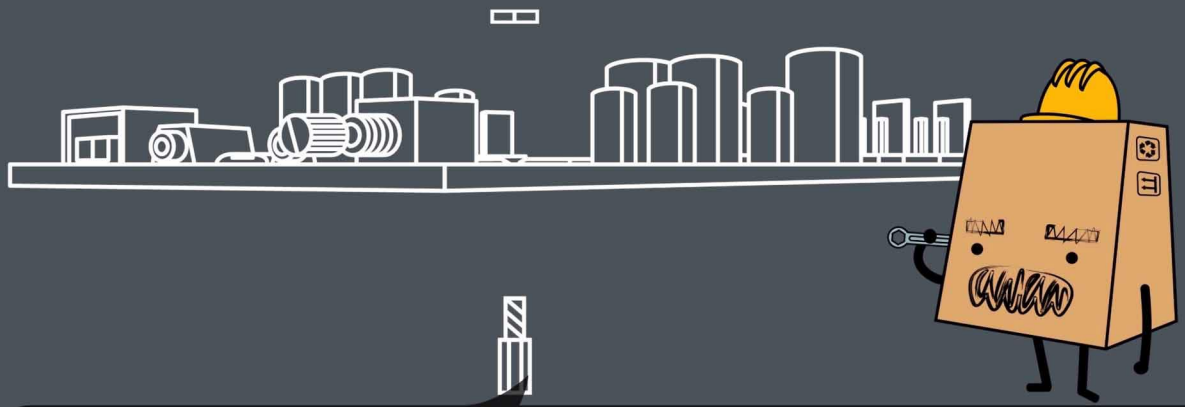


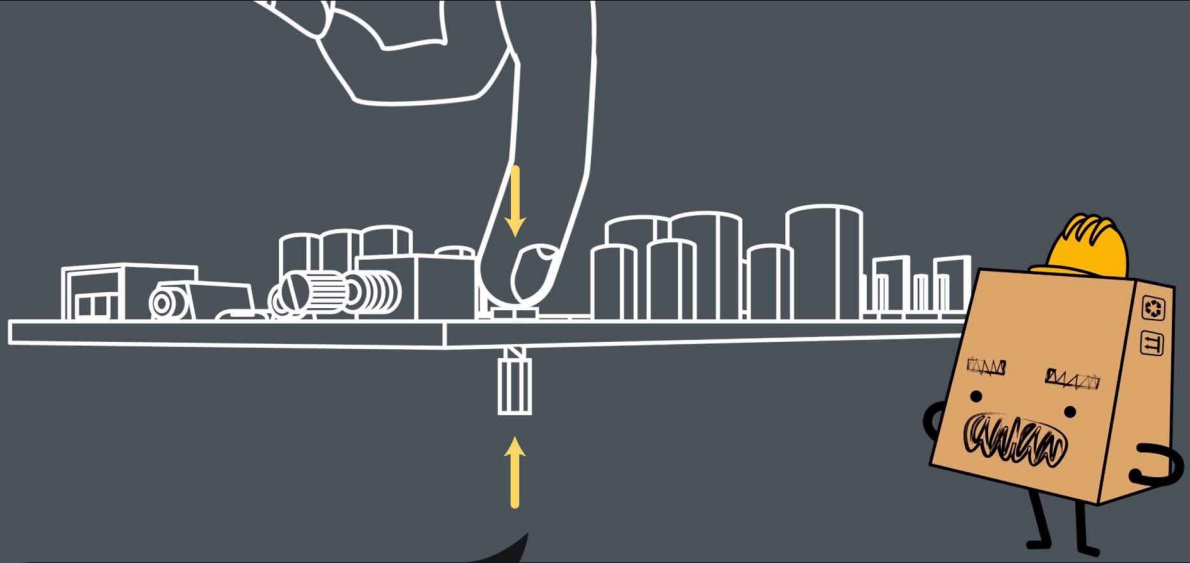
That's not all! It also holds the amplifier knob, a washer, and one of the big nuts. These are for fixin' the knob in place.



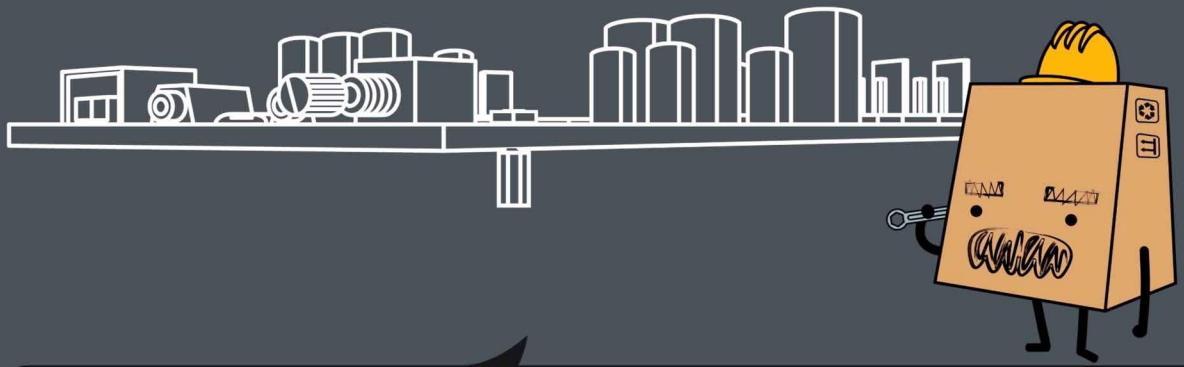


Spot the four holes on the board and get the lil nuts and standoffs.

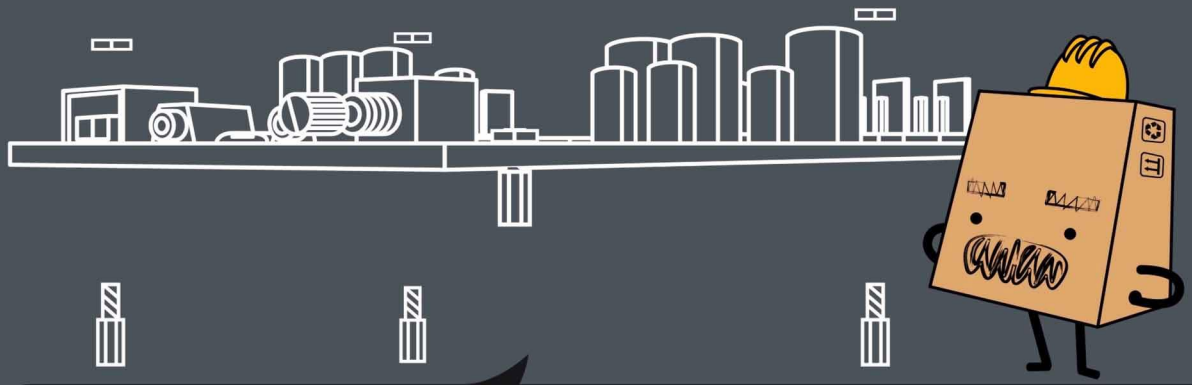

Let’s do this one standoff at a time.



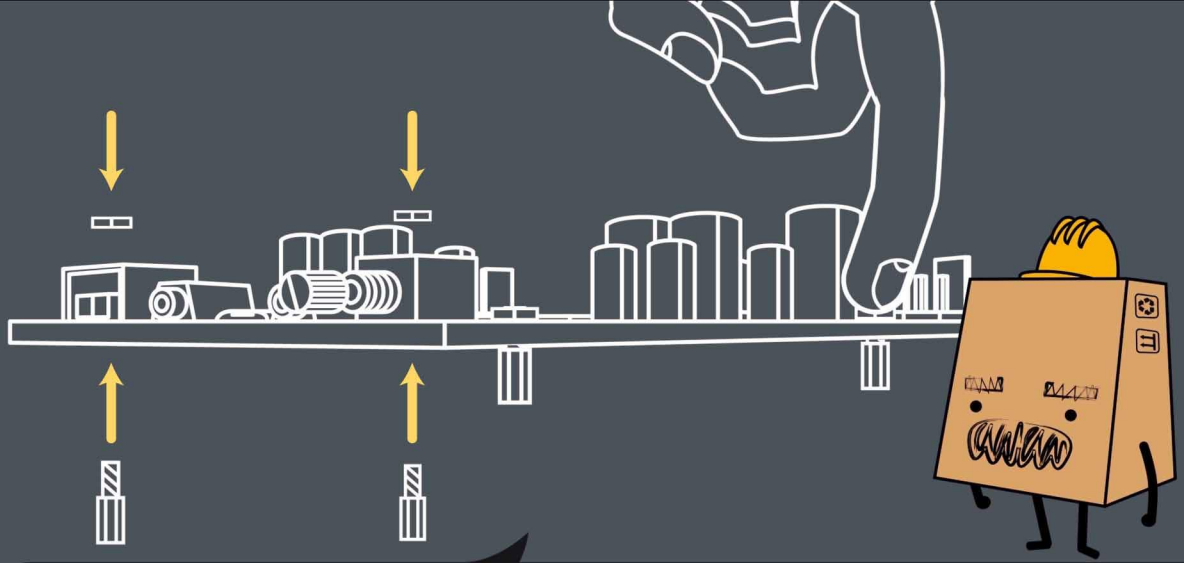
Start with inserting one of the standoffs into one of the holes. Take a nut and press it against the standoff, then use a finger to hold the nut in place as you screw the standoff in.



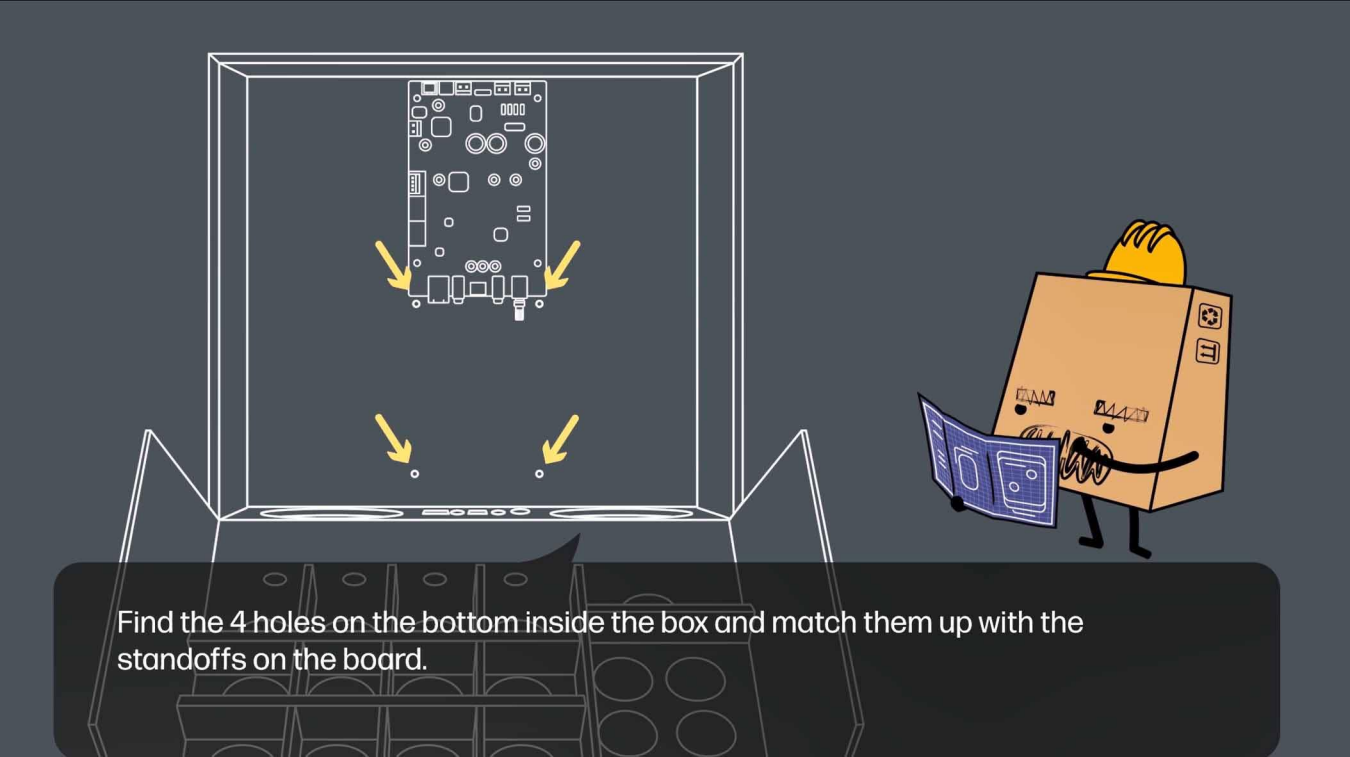
One standoff down, three more to go! Remember: righty tighty, lefty loosey!



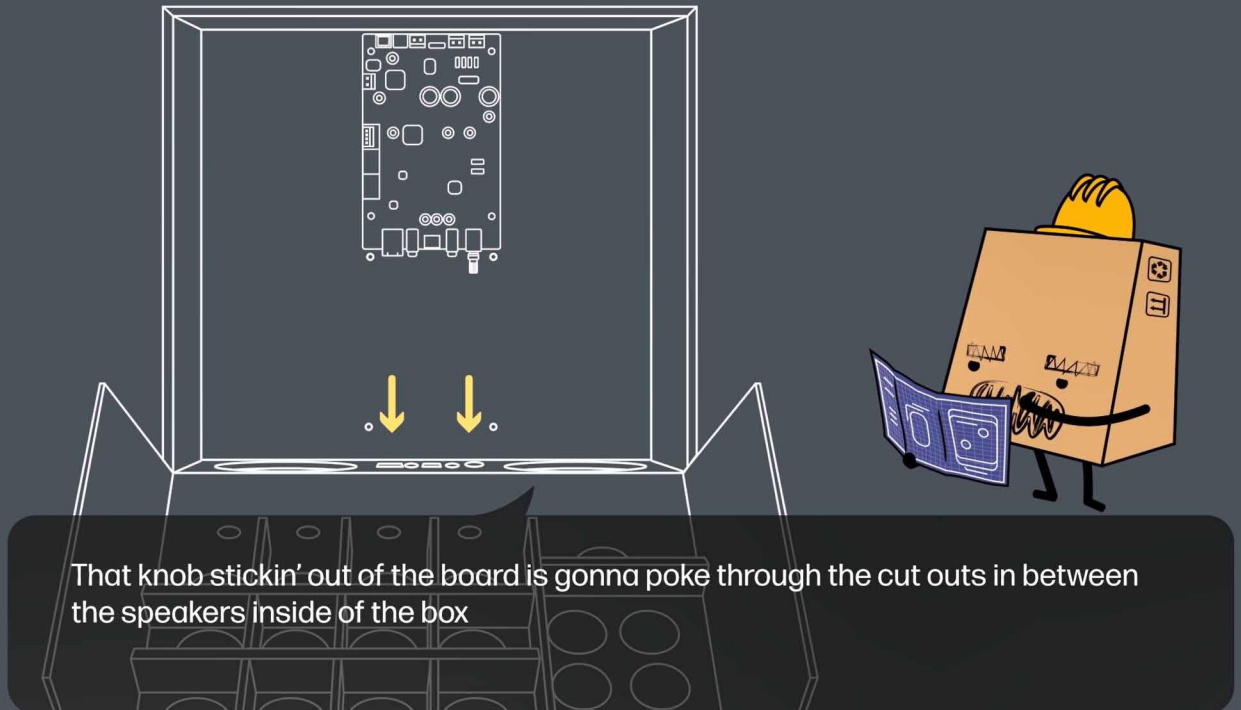
Repeat the steps to a tee to install the other three. Hey, that rhymed!



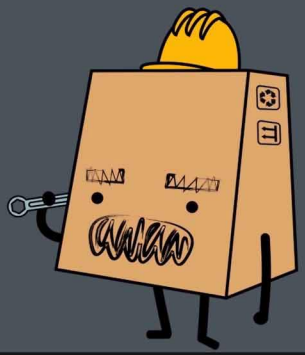
Let's go over them again. Pop a standoff into one of the holes on the board. Press a nut against the standoff, then hold the nut in place with your finger so it doesn't move as you screw the standoff in. Do this for all remaining standoffs!



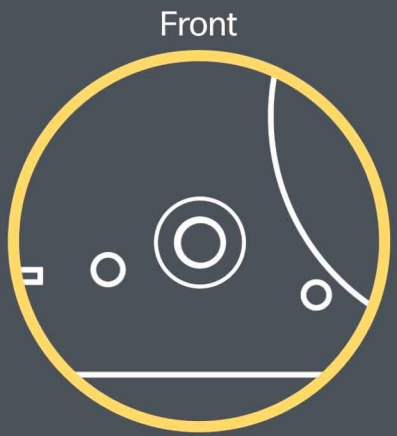
Find the 4 holes on the bottom inside the box and match them up with the standoffs on the board.

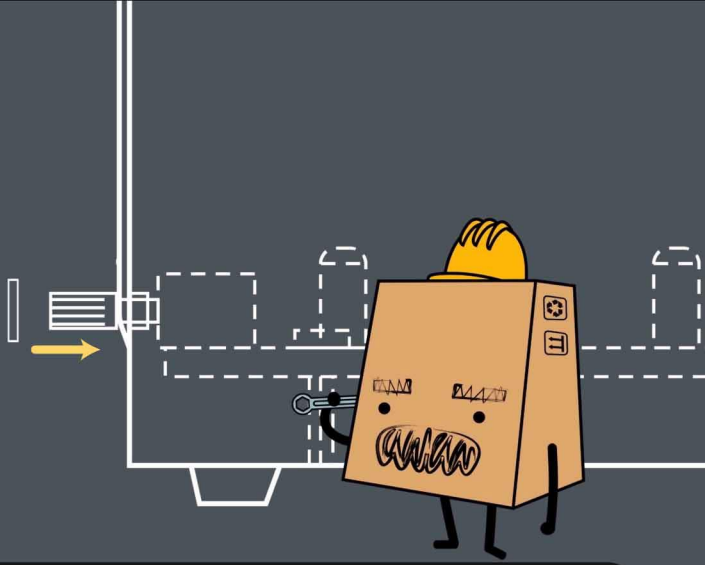


That knob stickin' out of the board is gonna poke through the cut outs in between the speakers inside of the box

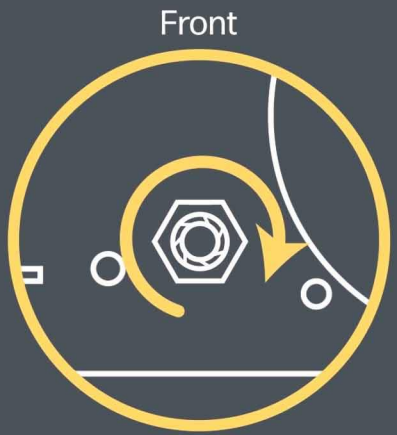


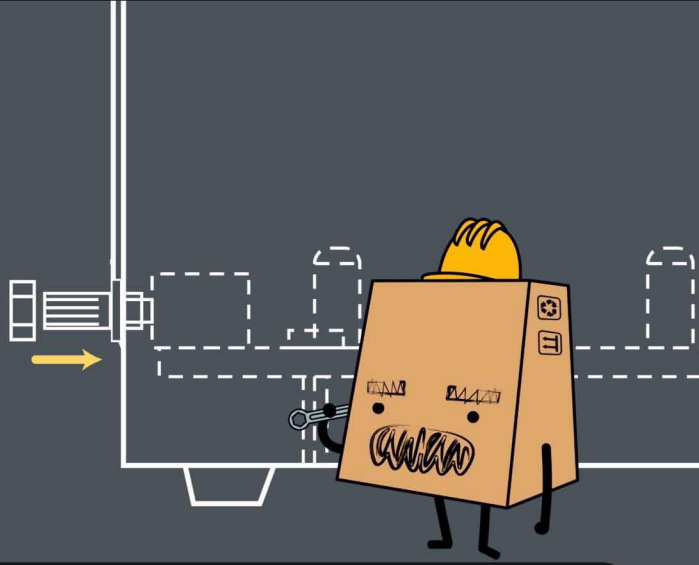
You'll wanna apply continuous pressure to both sides of the box during this next step.



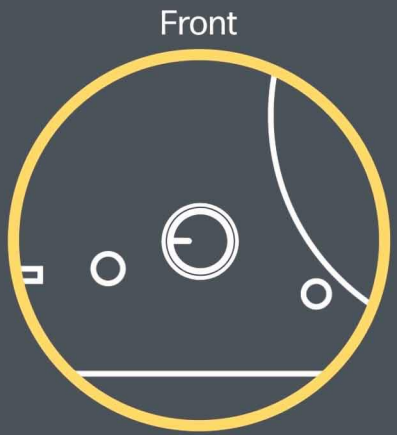


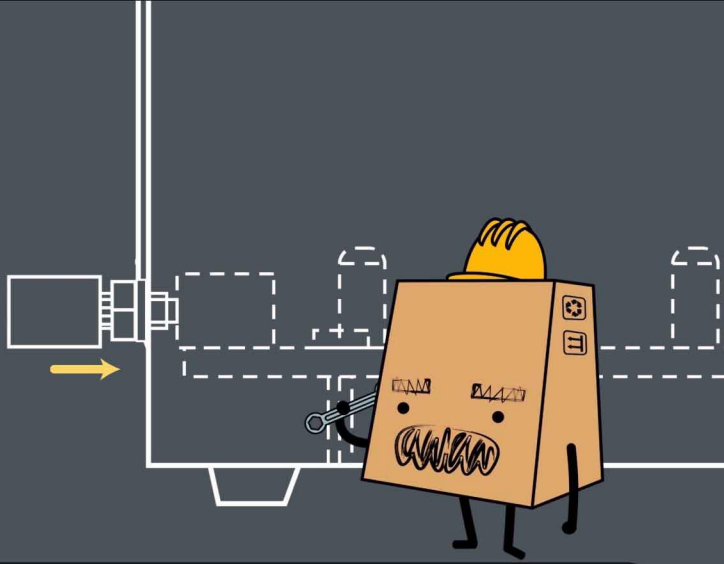
The first step to getting the amplifier knob on is to slide the washer on.



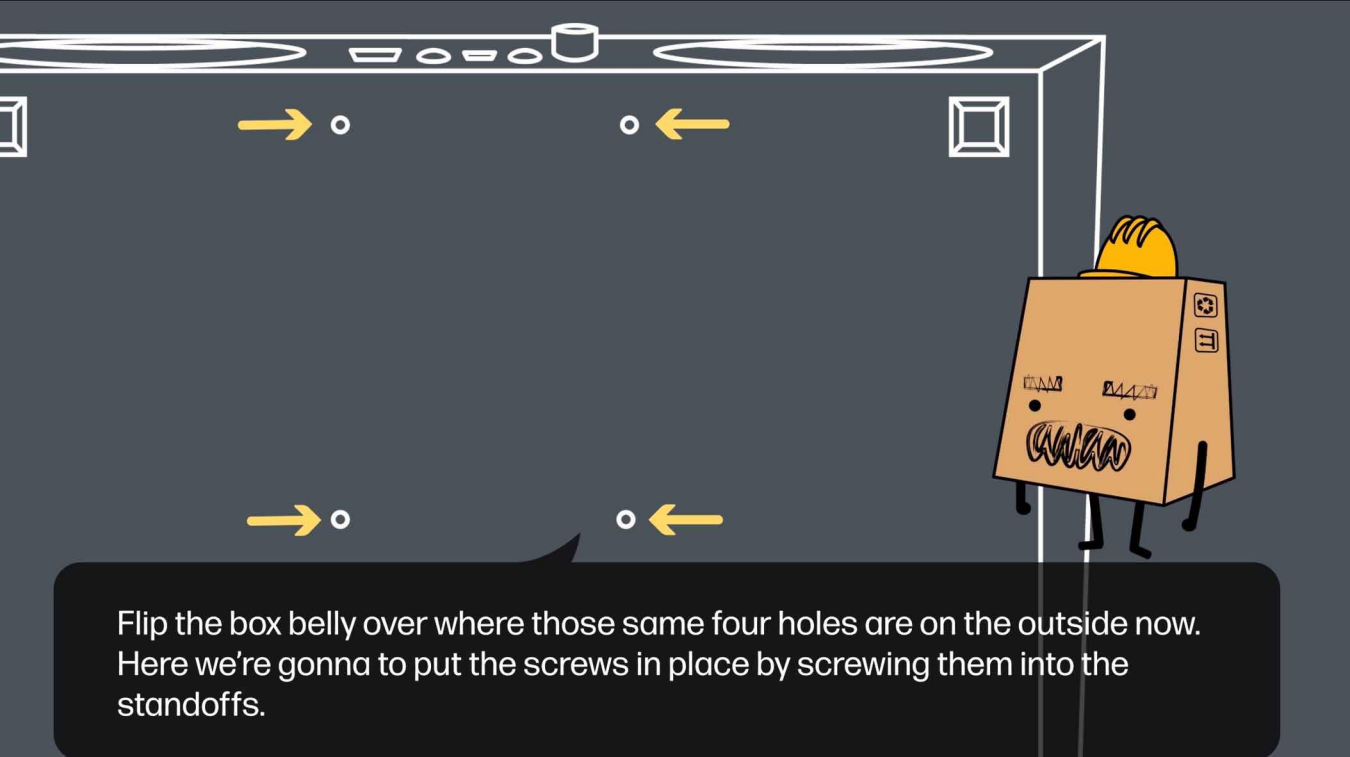


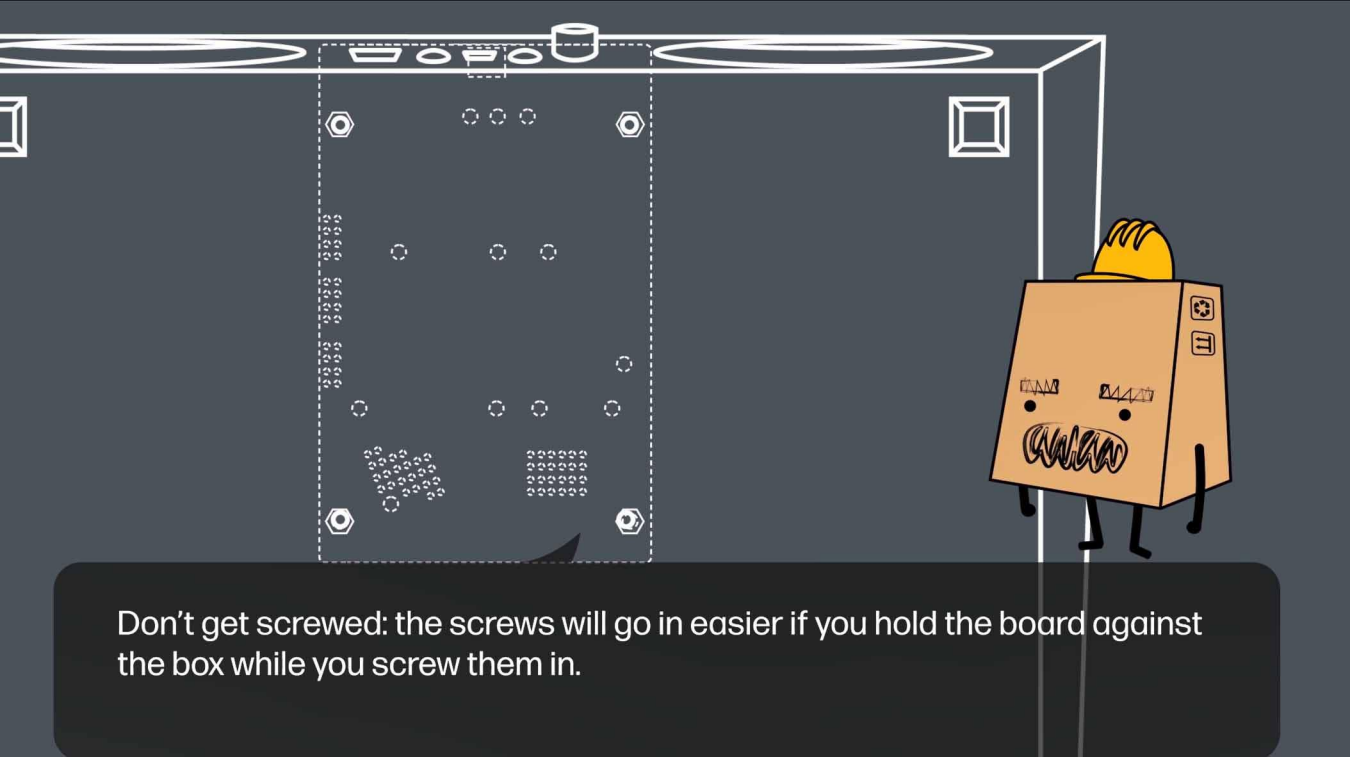
Next, make sure to screw on the big nut. It should fix on to the grooves on the amplifier knob.



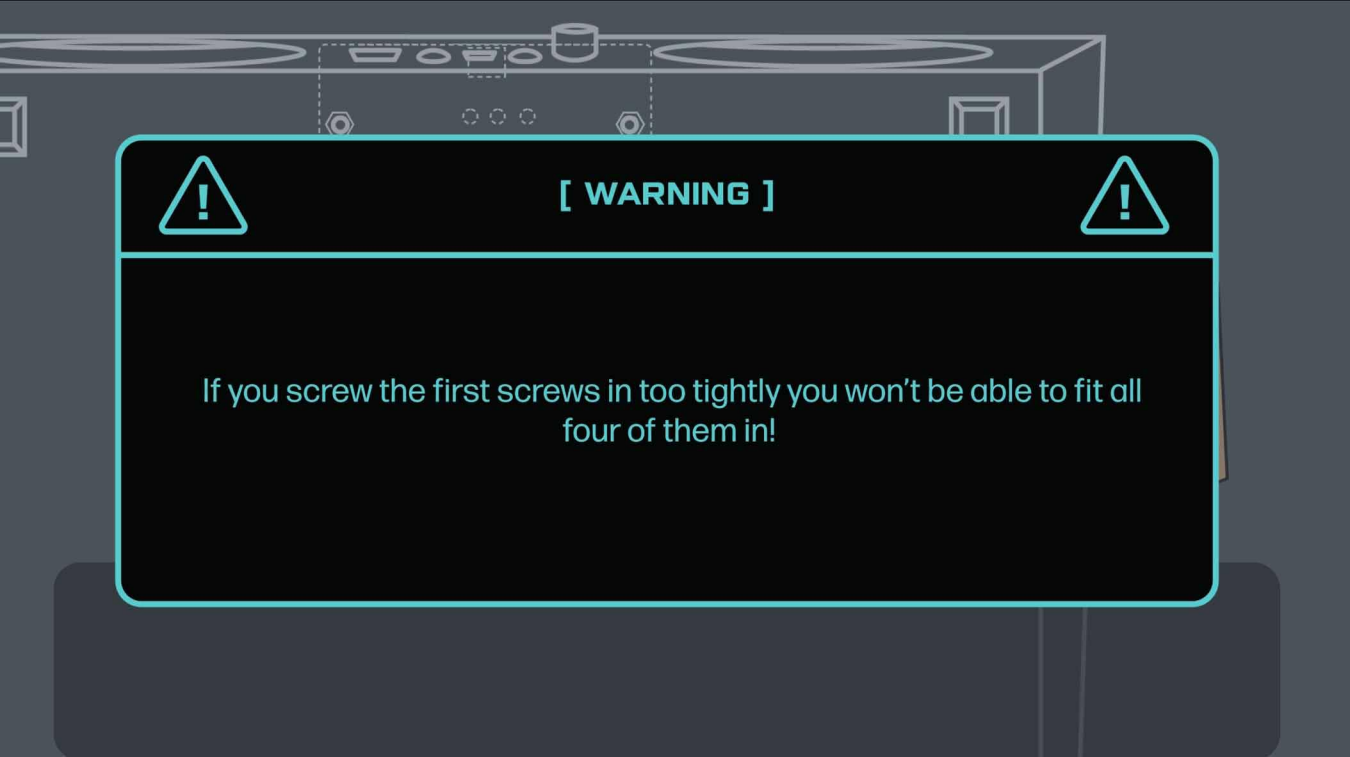


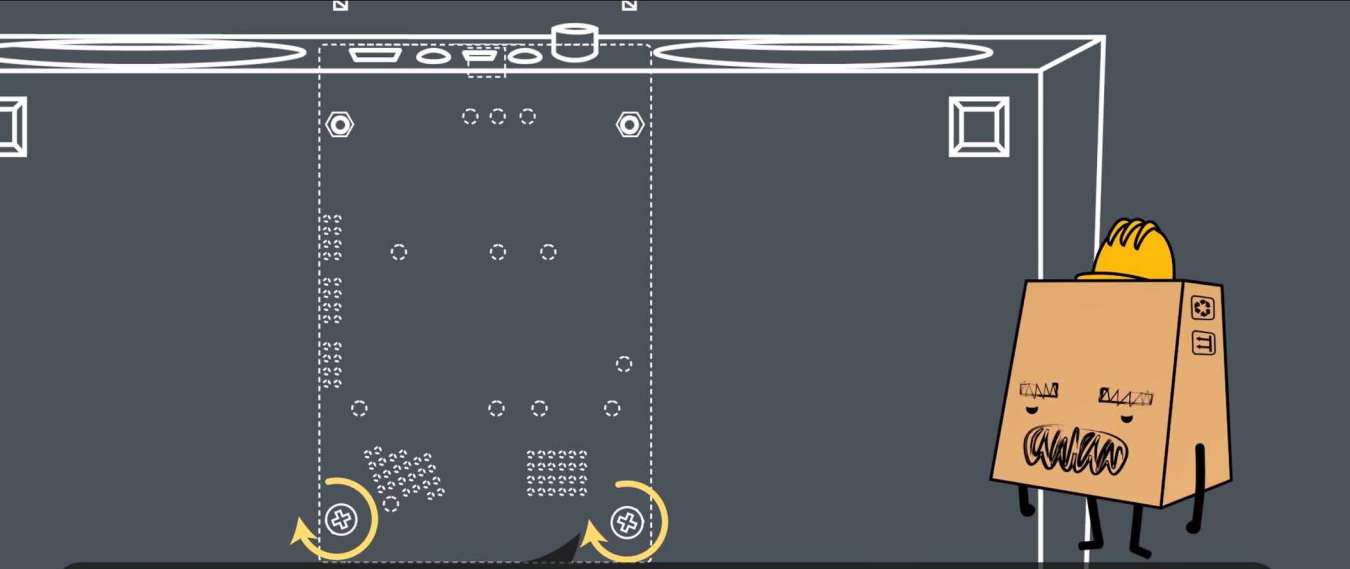
Now it's time to fasten on the knob and be sure to twist it tightly to the left so that the box is turned off, you'll thank me later for that one.


Flip the box belly over where those same four holes are on the outside now. Here we're gonna to put the screws in place by screwing them into the standoffs.

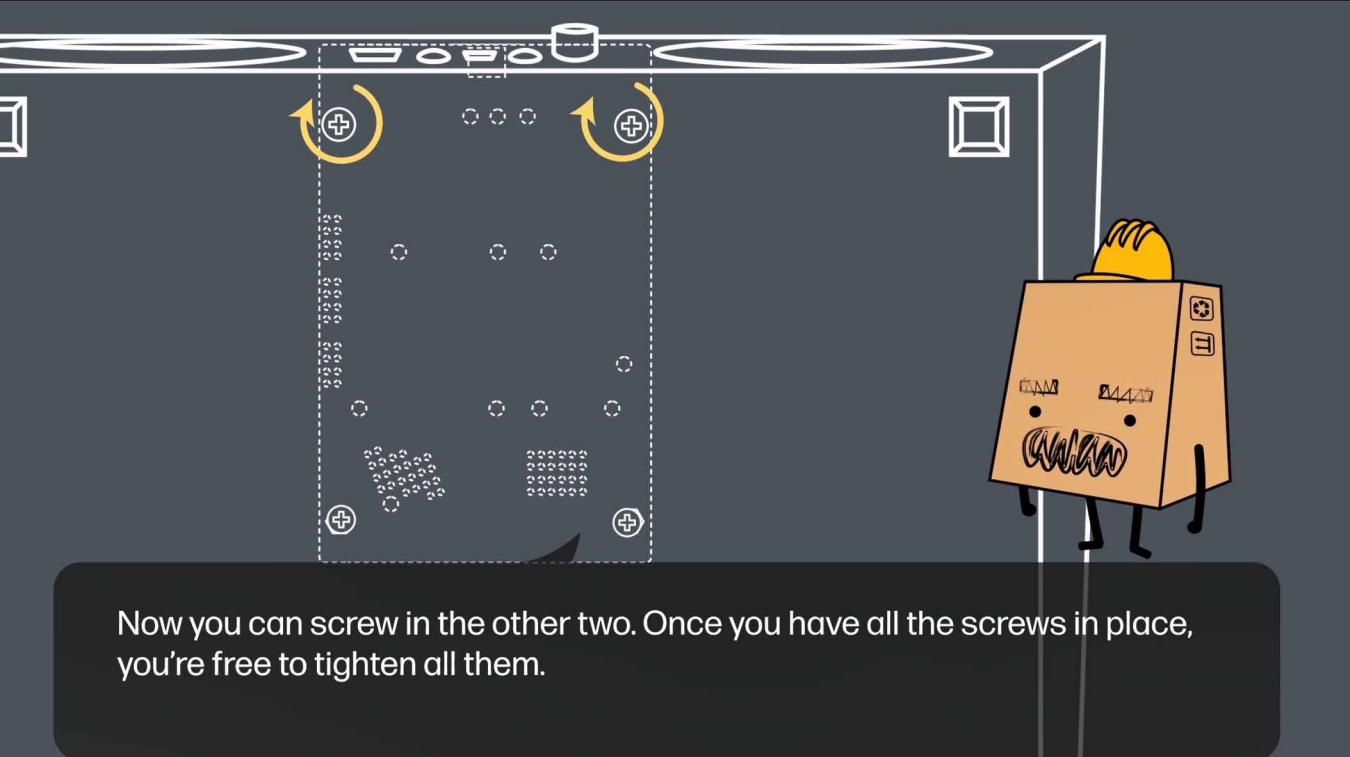


Don’t get screwed: the screws will go in easier if you hold the board against the box while you screw them in.


[WARNING]
If you screw the first screws in too tightly you won't be able to fit all four of them in!

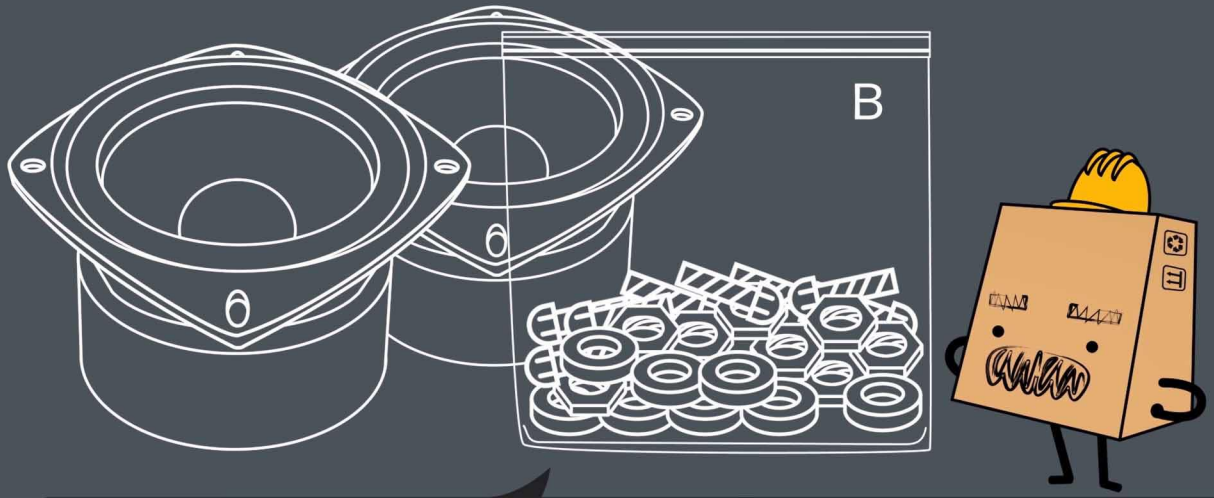


Screw the two screws farthest from the speakers in place first. Again, not too tightly!

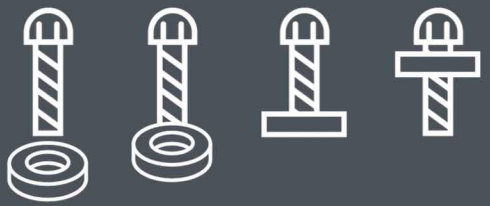


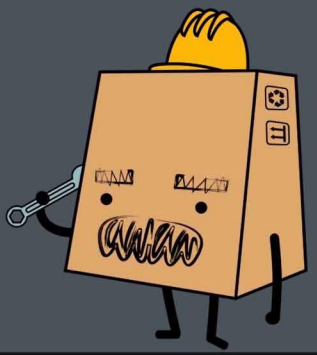
Now you can screw in the other two. Once you have all the screws in place, you're free to tighten all them.

03. Speakers

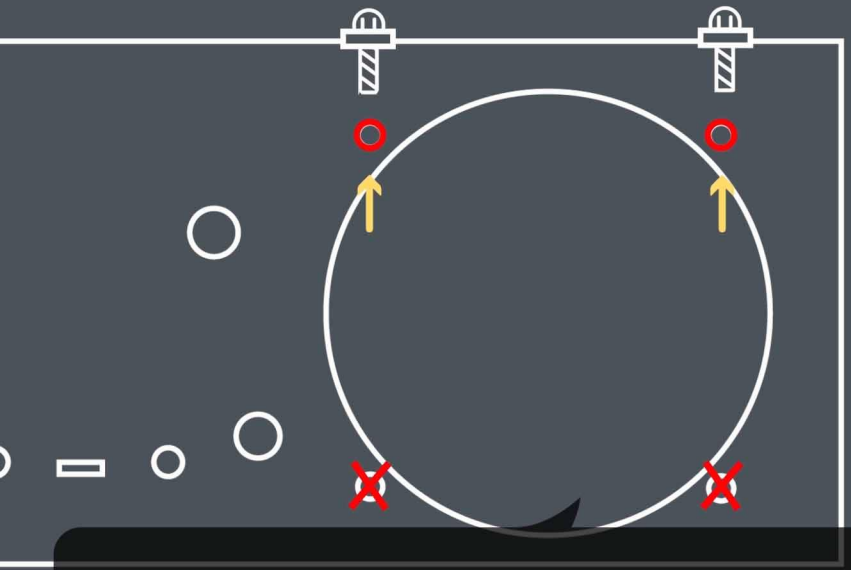


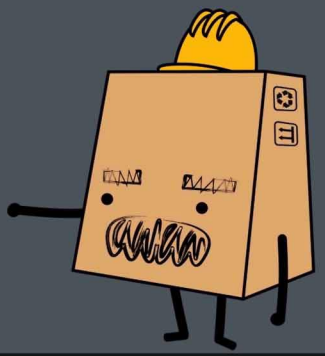
For this job you need the speakers and Bag B, which holds some rubber washers, some screws and some nuts.



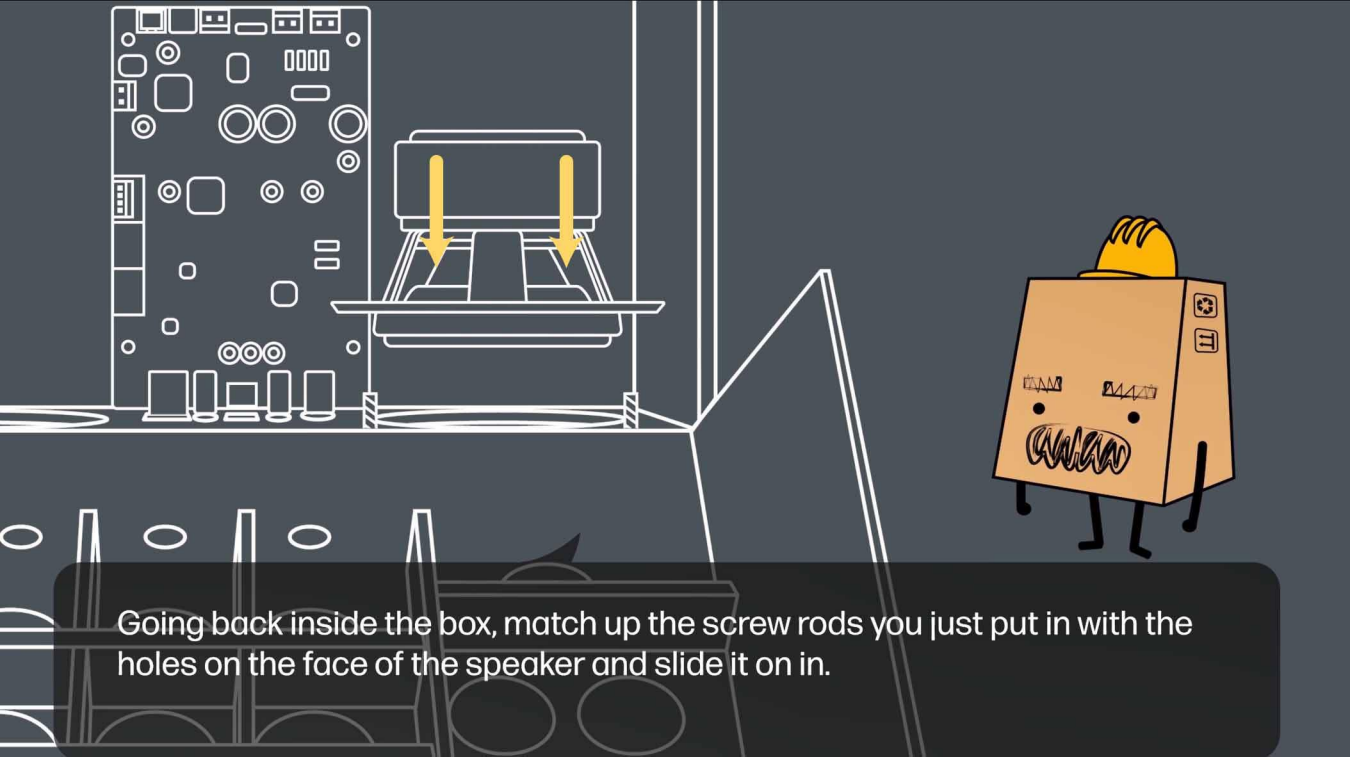


Prep the screws by slipping on a rubber washer. The washers and screws fit together perfectly so once they're on they ain't going anywhere!

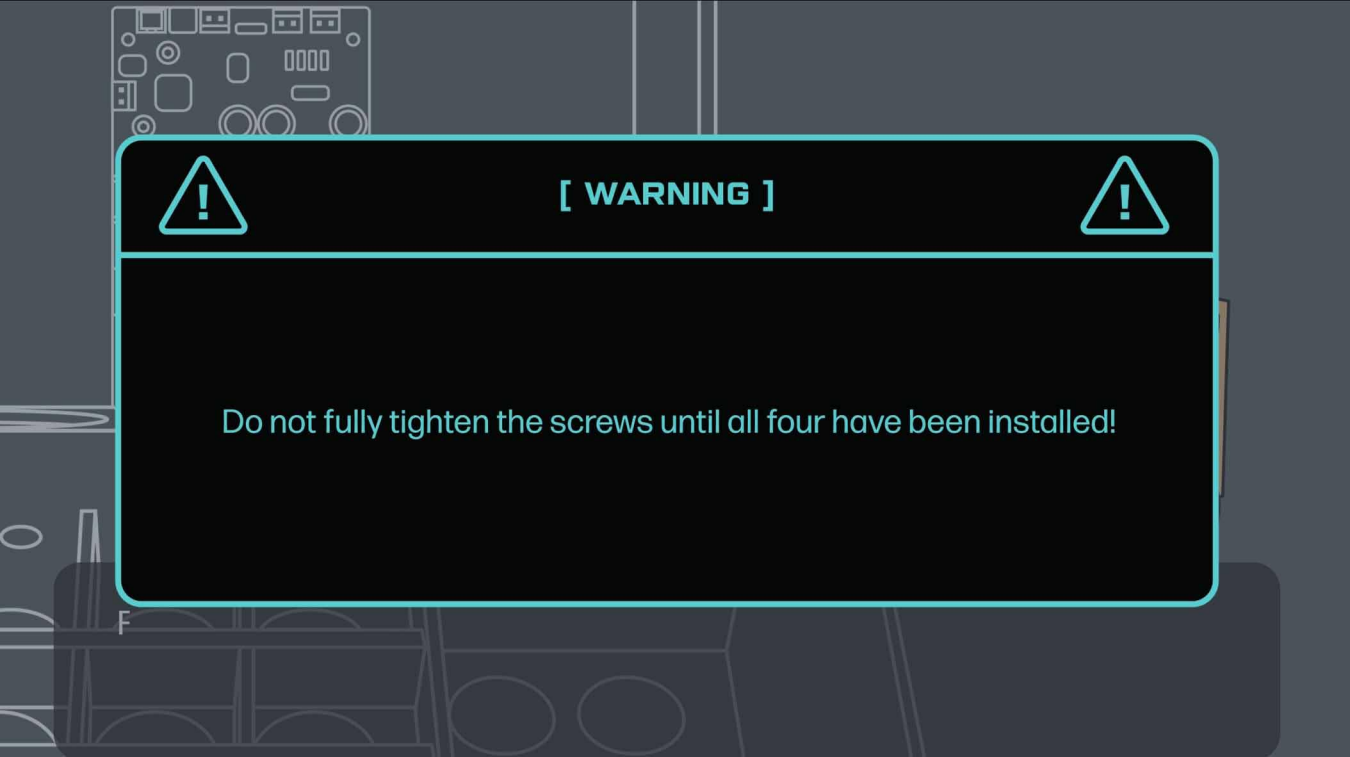


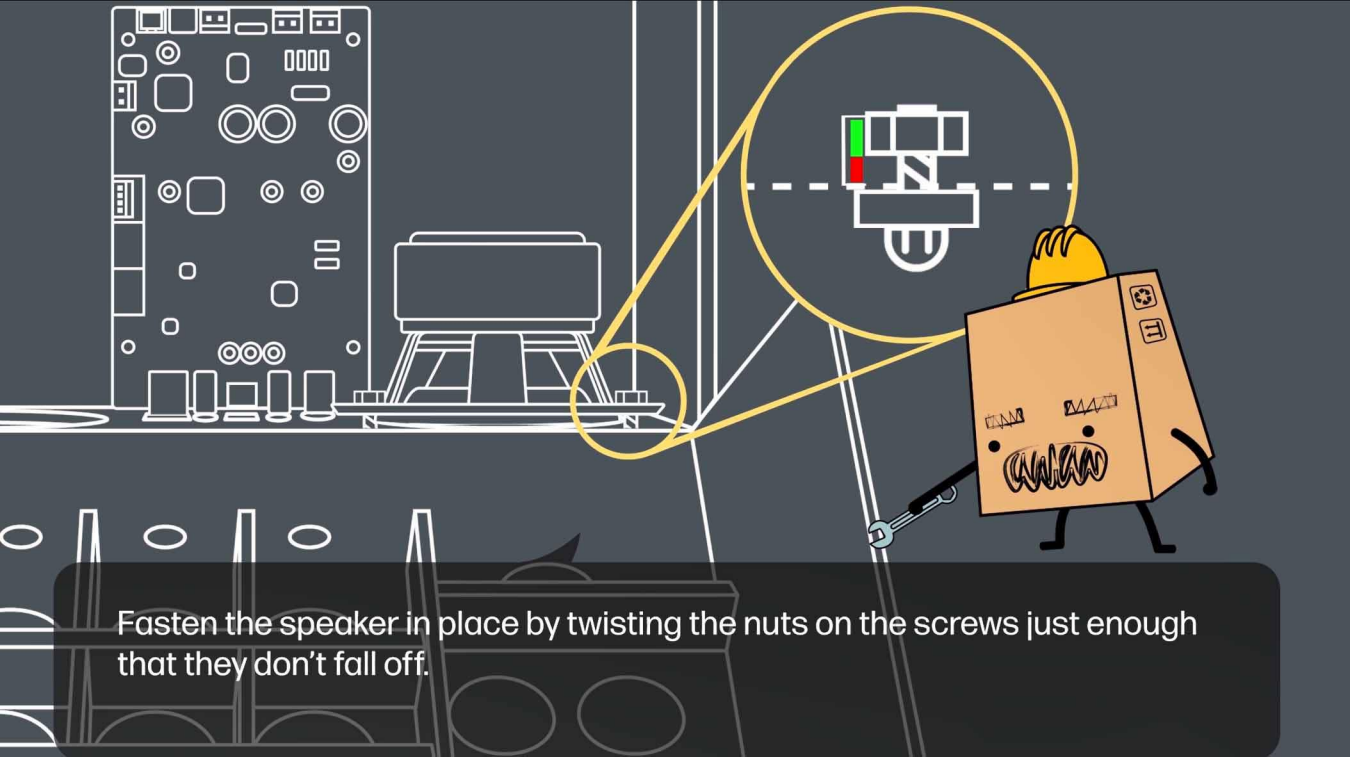


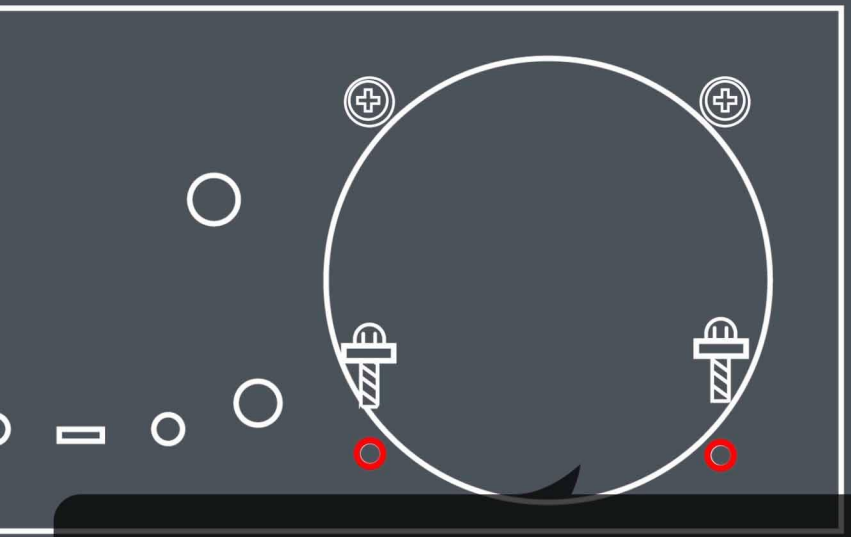
Grab two of your prepped screws and stick them, from the outside in, through the top two holes above the big speaker hole on the box.

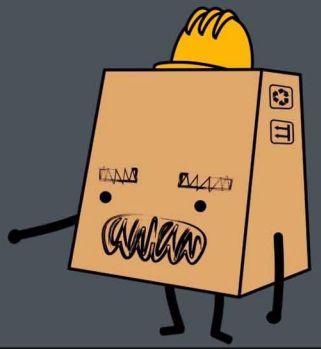


Going back inside the box, match up the screw rods you just put in with the holes on the face of the speaker and slide it on in.

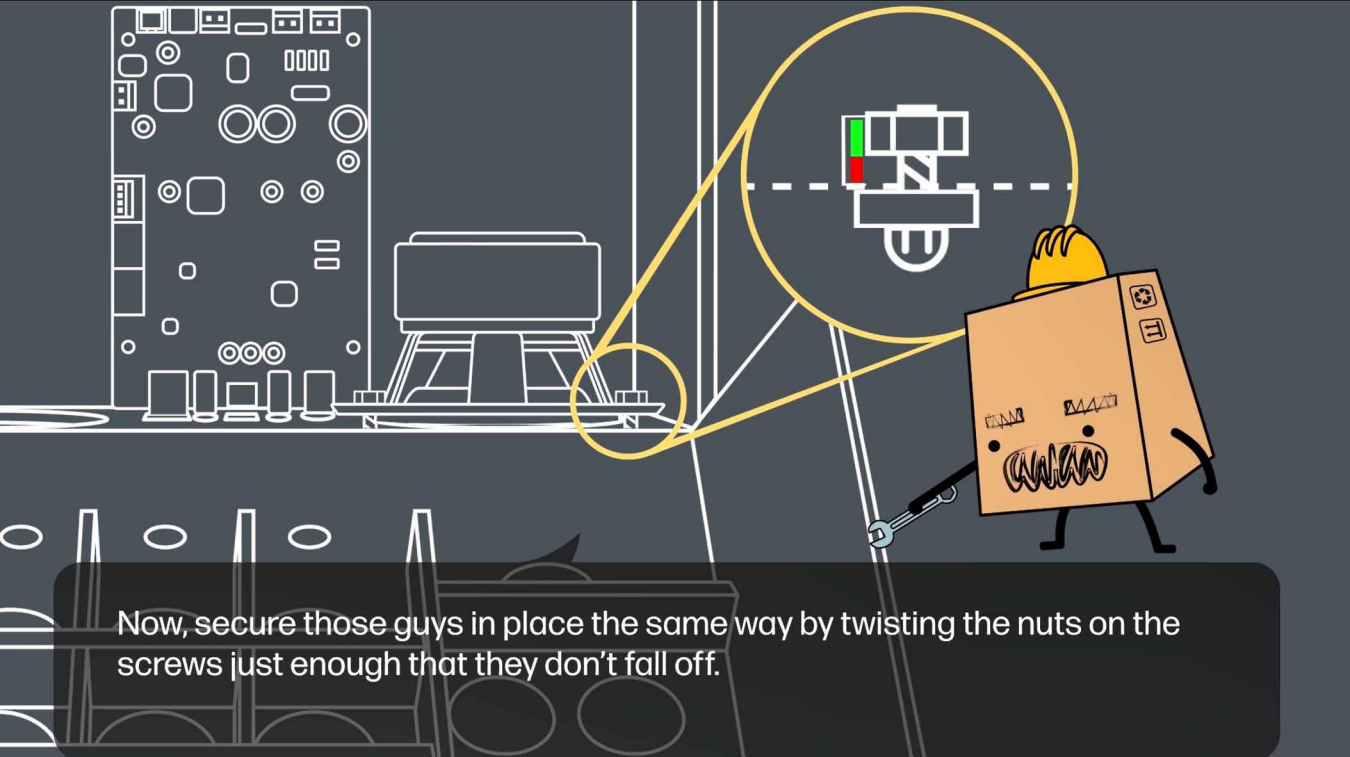

[WARNING]
Do not fully tighten the screws until all four have been installed!

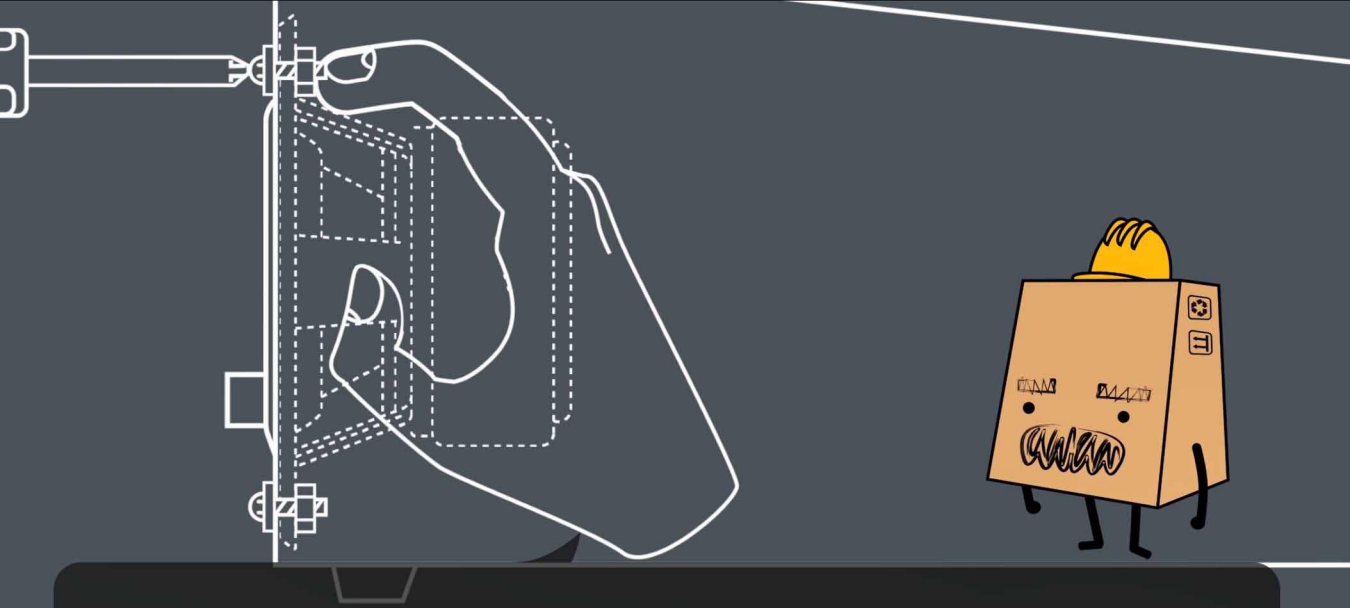

Fasten the speaker in place by twisting the nuts on the screws just enough that they don’t fall off.



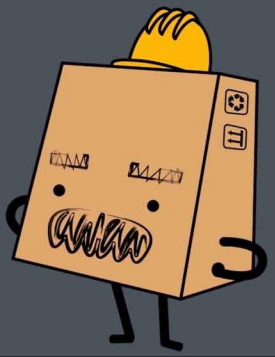


Keep up the good work as we move on down!

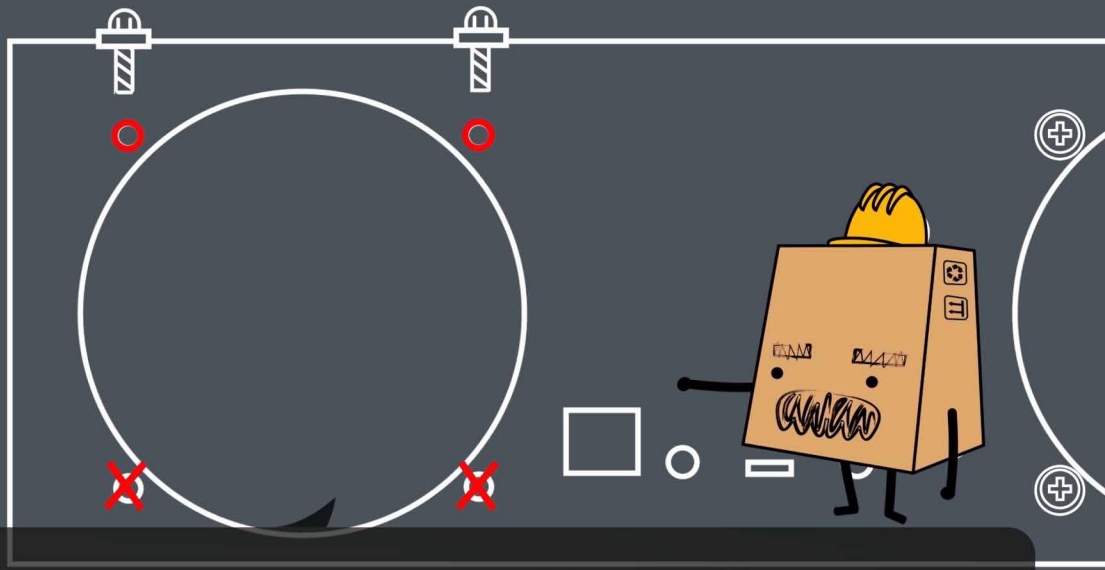

Now, secure those guys in place the same way by twisting the nuts on the screws just enough that they don't fall off.



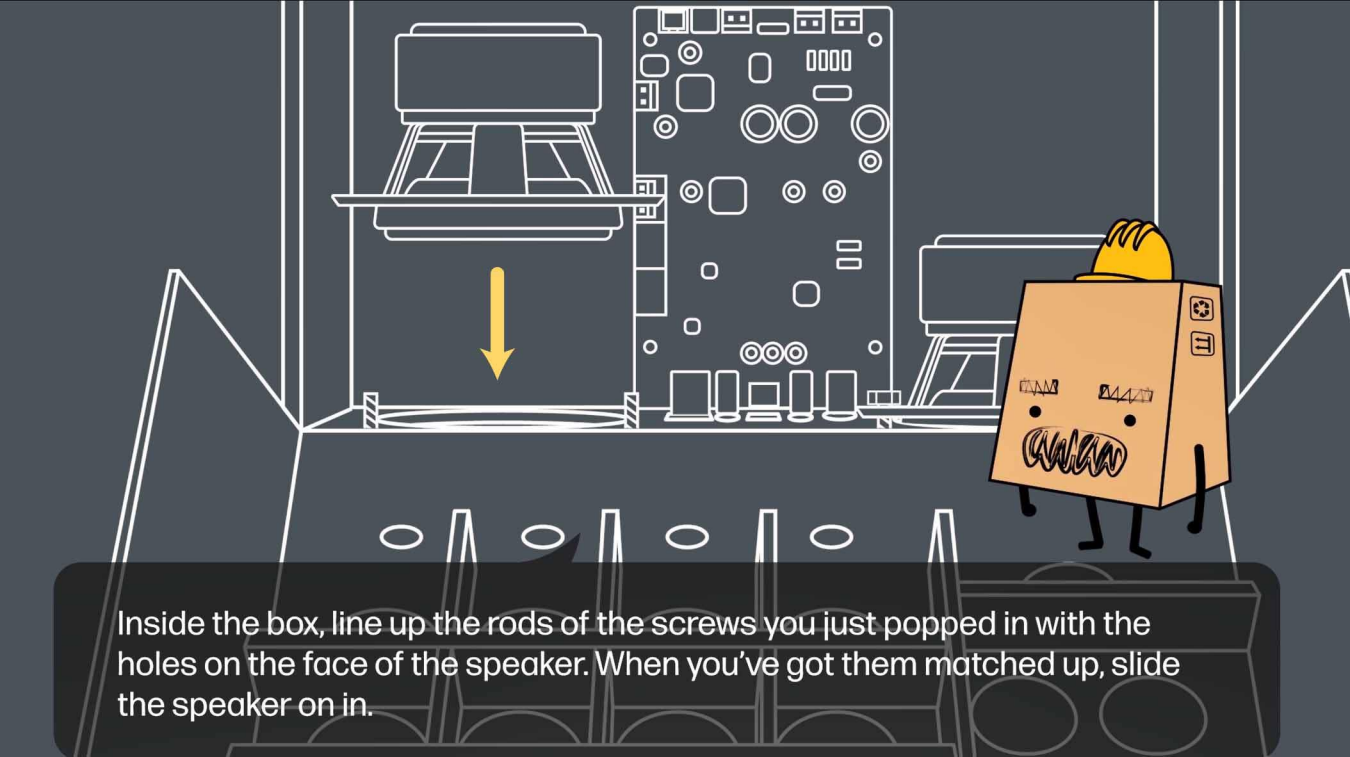
Use a finger to hold the nuts in place inside the box as you tighten the screws outside the box.



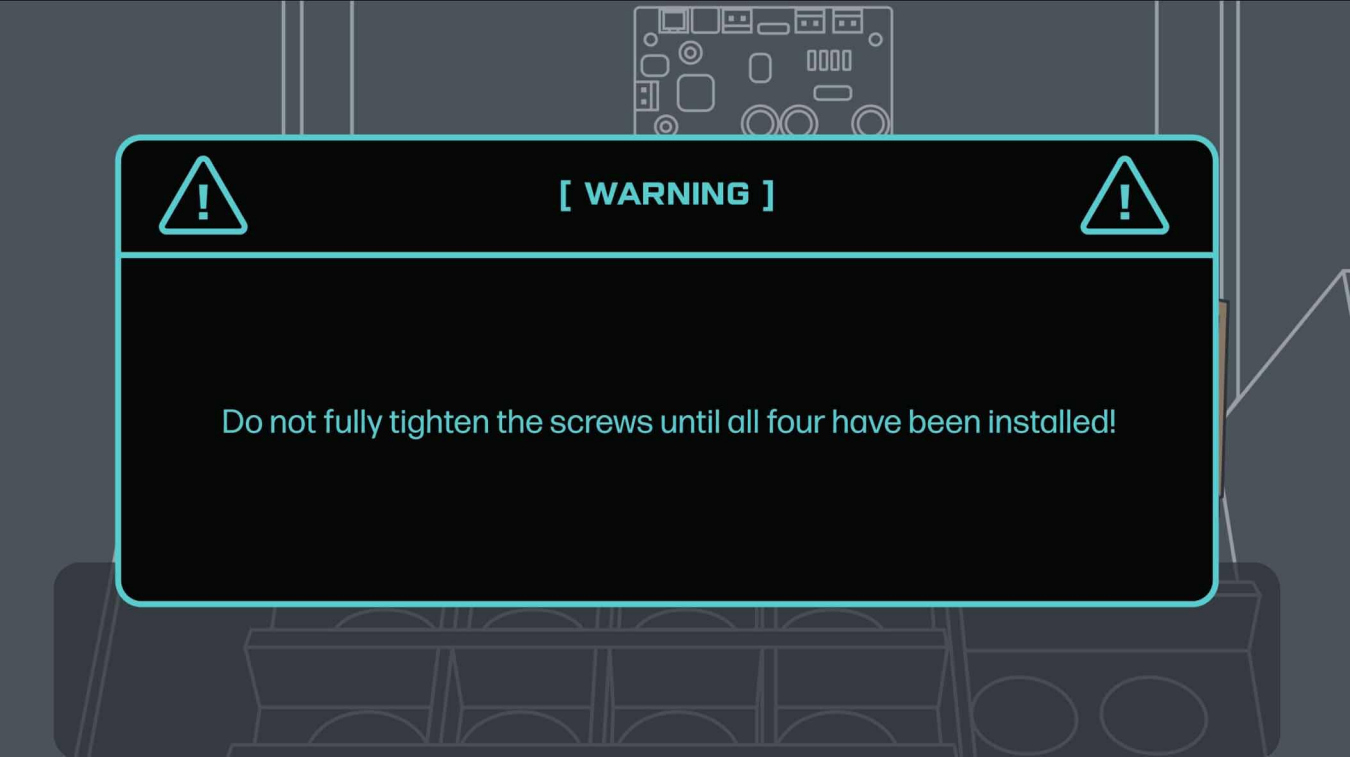
We're gonna wash, rinse, and repeat all of those steps for the other speaker!

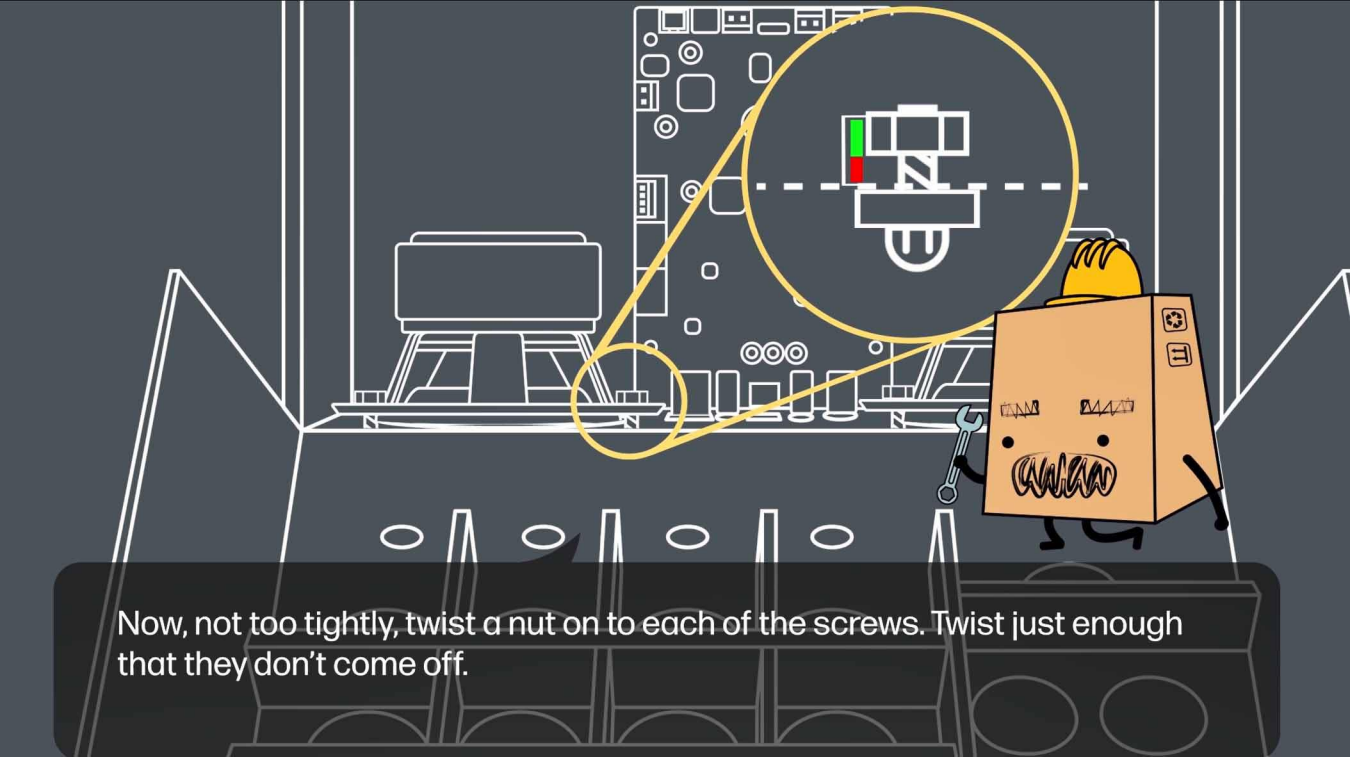


Get two of your washer prepped screws. From the outside in, pop them through the top holes above the big speaker hole.

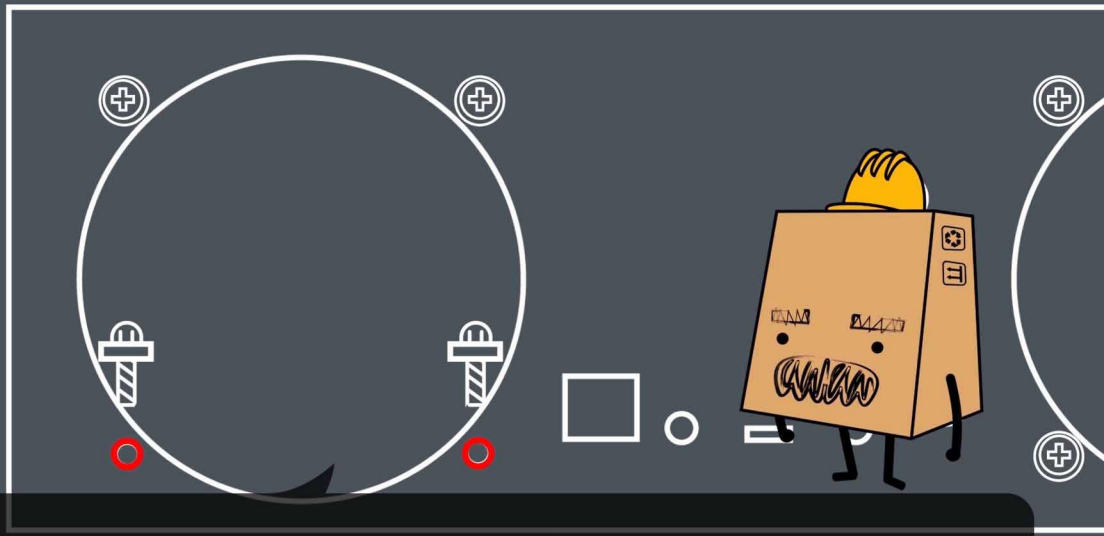


Inside the box, line up the rods of the screws you just popped in with the holes on the face of the speaker. When you've got them matched up, slide the speaker on in.

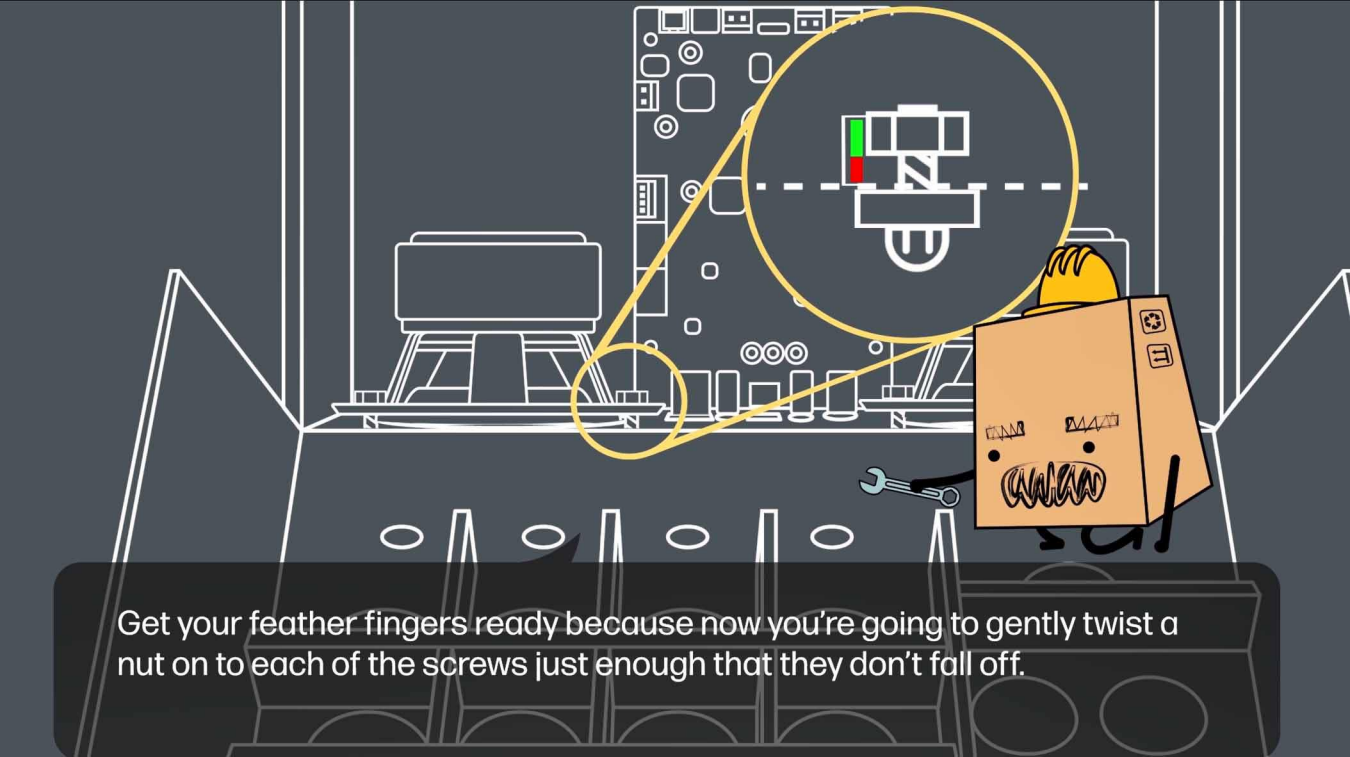

[WARNING]
Do not fully tighten the screws until all four have been installed!



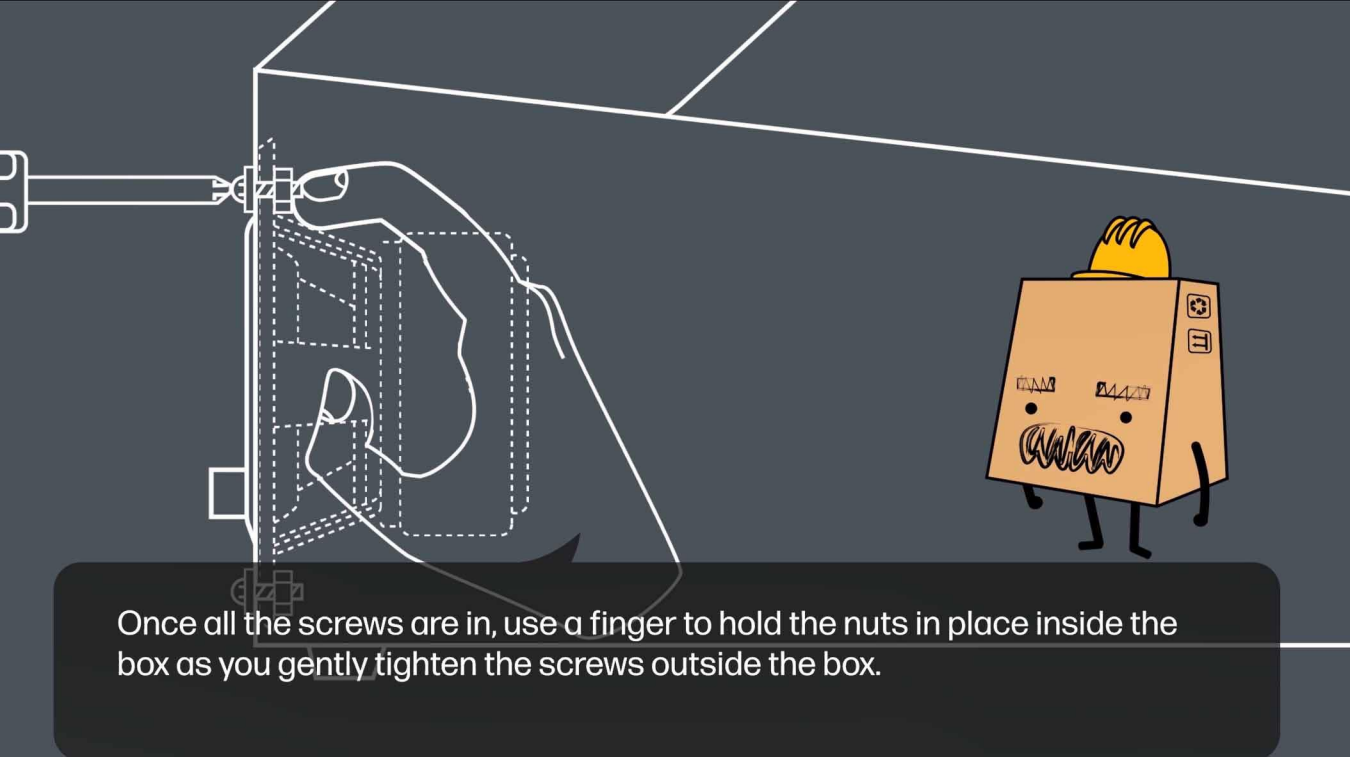
Now, not too tightly, twist a nut on to each of the screws. Twist just enough that they don't come off.



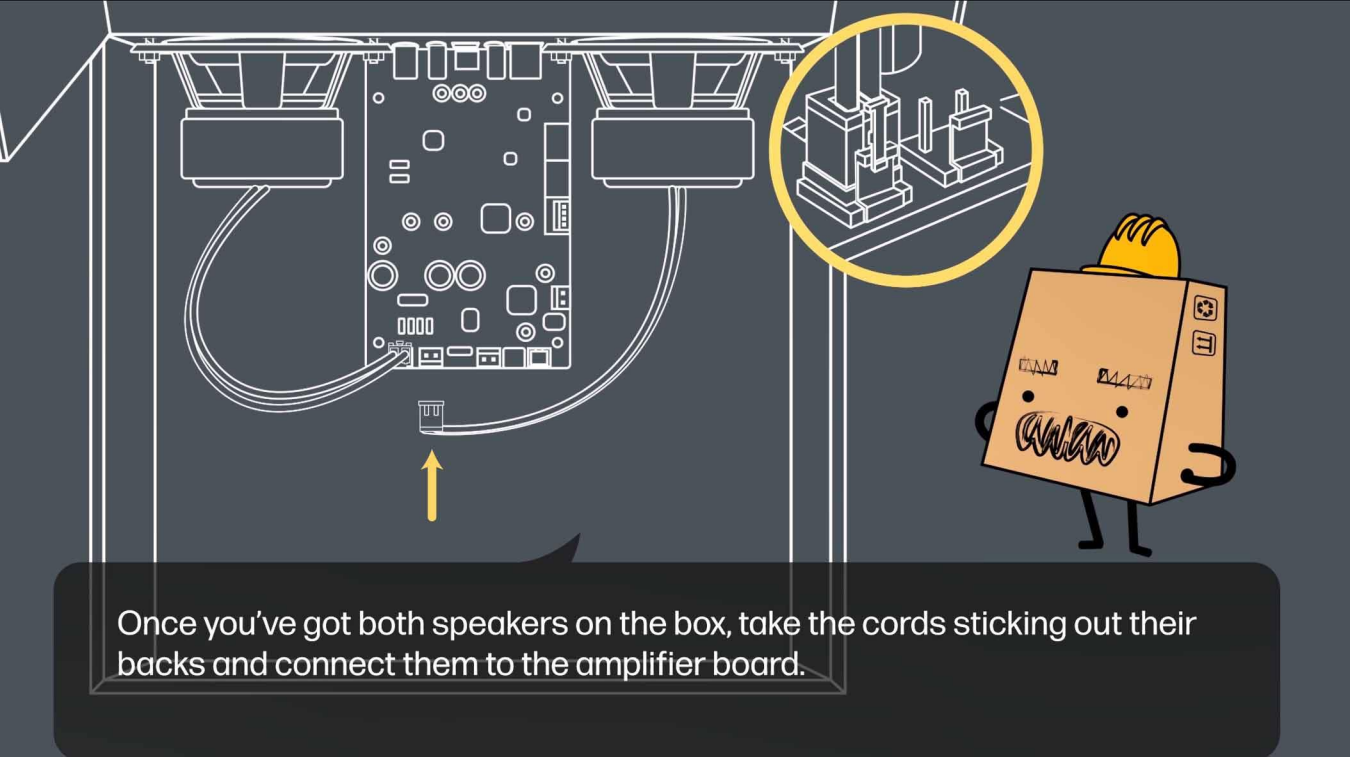
Looking good! Now stick two more screws into the bottom two holes below the big speaker hole.



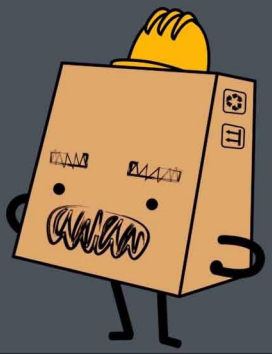
Get your feather fingers ready because now you're going to gently twist a nut on to each of the screws just enough that they don't fall off.



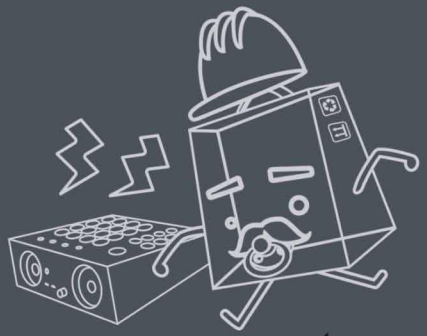
Once all the screws are in, use a finger to hold the nuts in place inside the box as you gently tighten the screws outside the box.

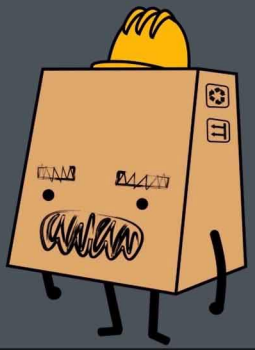

Once you've got both speakers on the box, take the cords sticking out their backs and connect them to the amplifier board.

04. Battery

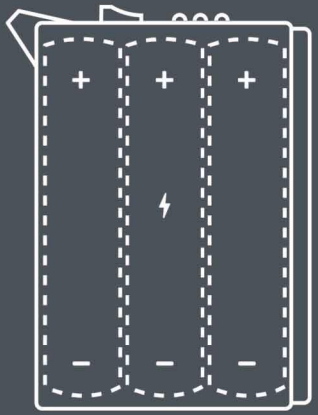


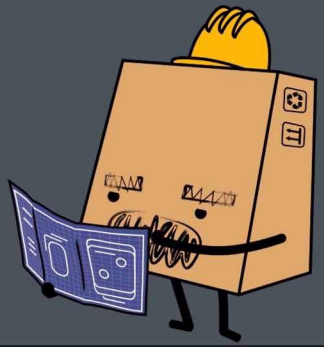
Before we throw the battery in there, double check that the amplifier knob is twisted all the way to the left so that the box is still turned off.



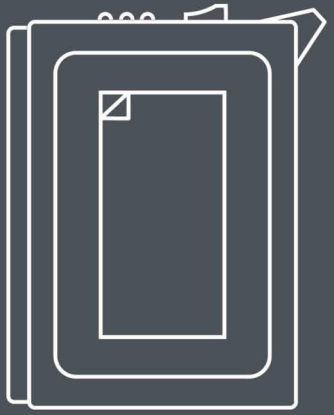


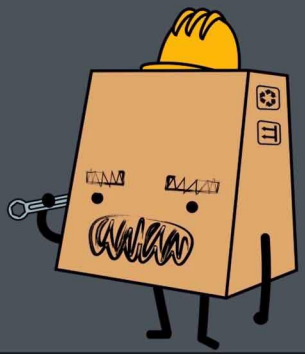
Trust me, you're better off safe than sorry. I've lost some good workers to getting zapped!



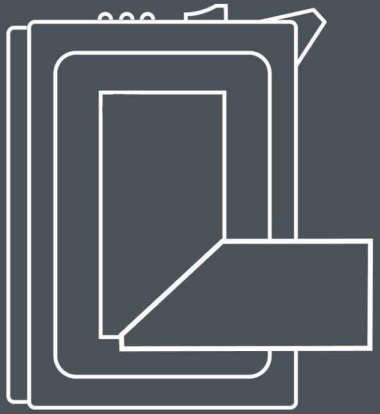


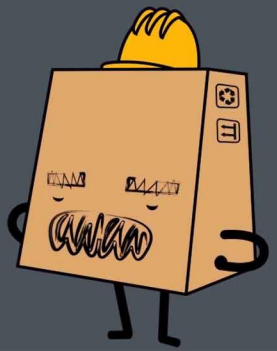
Right, so, you gotta get the battery now. It's got that nice blue wrapping round it and a barrel connector cable sprouting out the side of it.



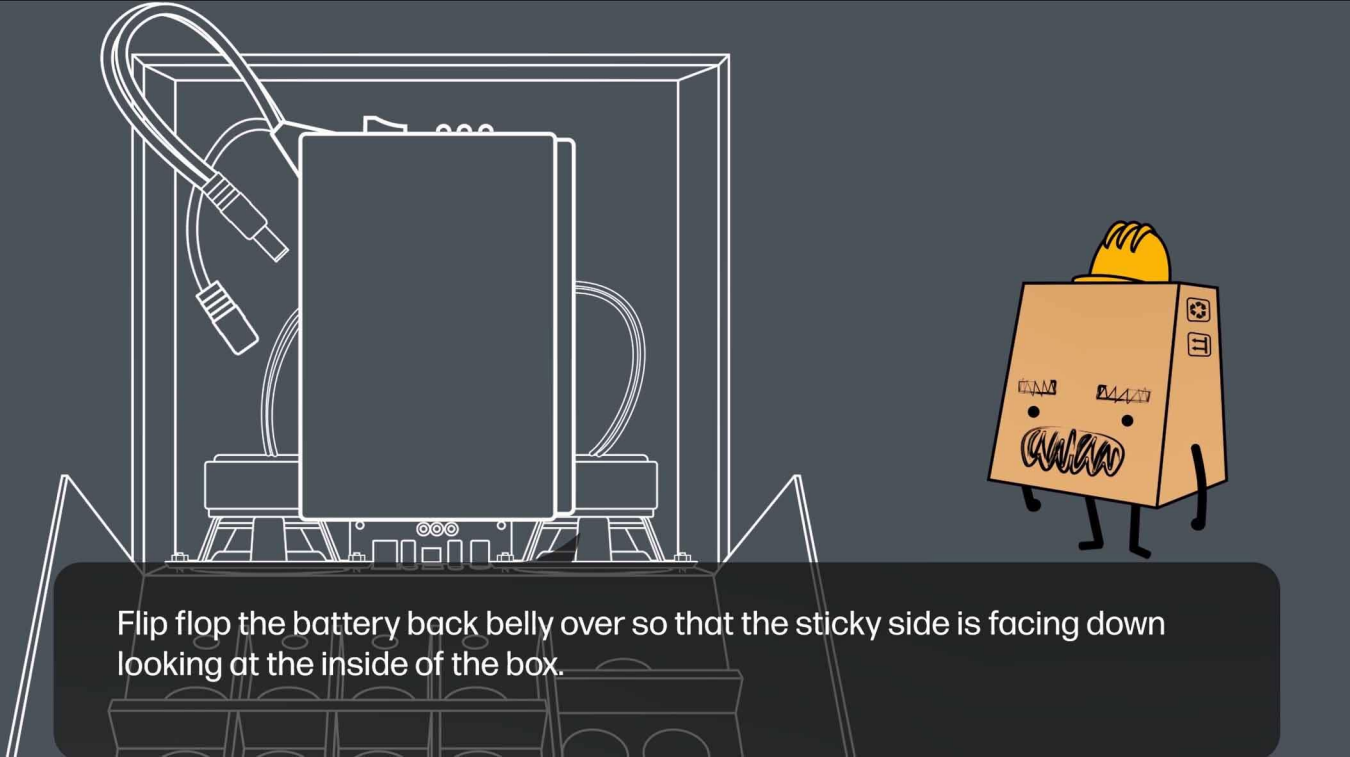


Okie-dokie now grab the battery and flip flop it over to the side that's got the tape on it.

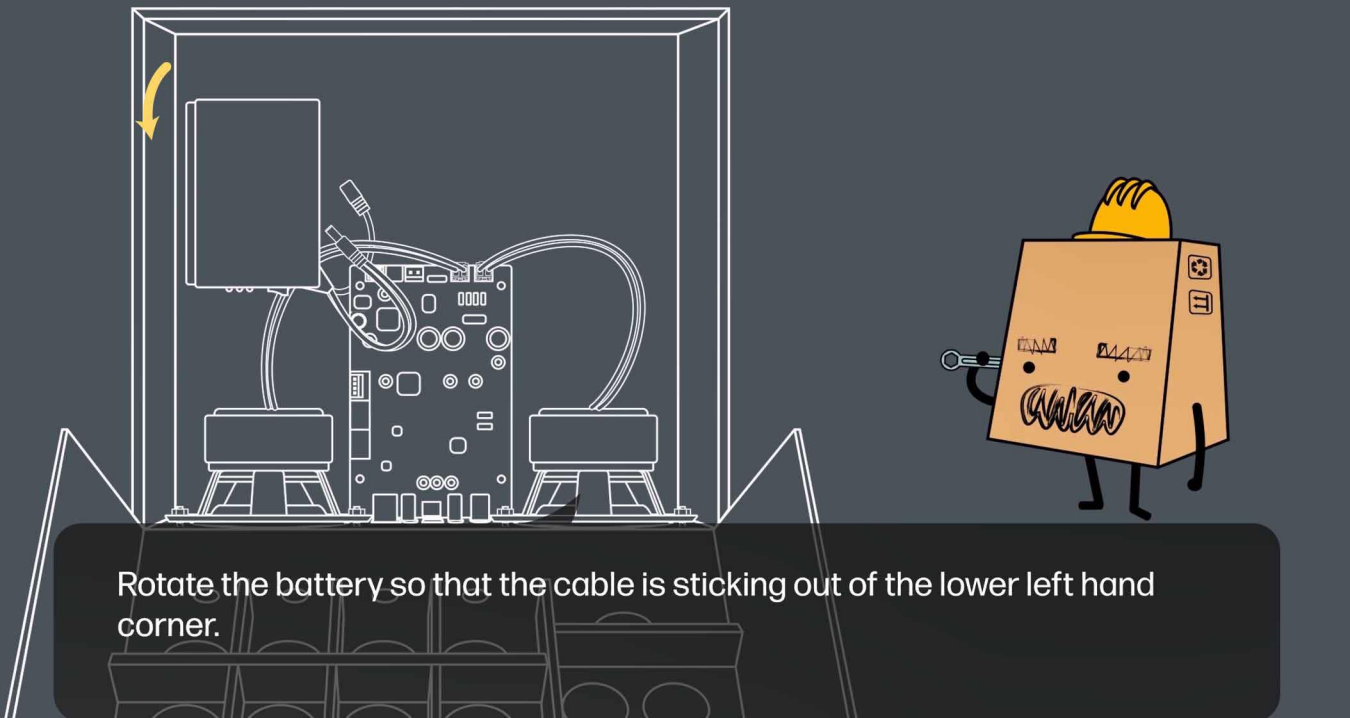




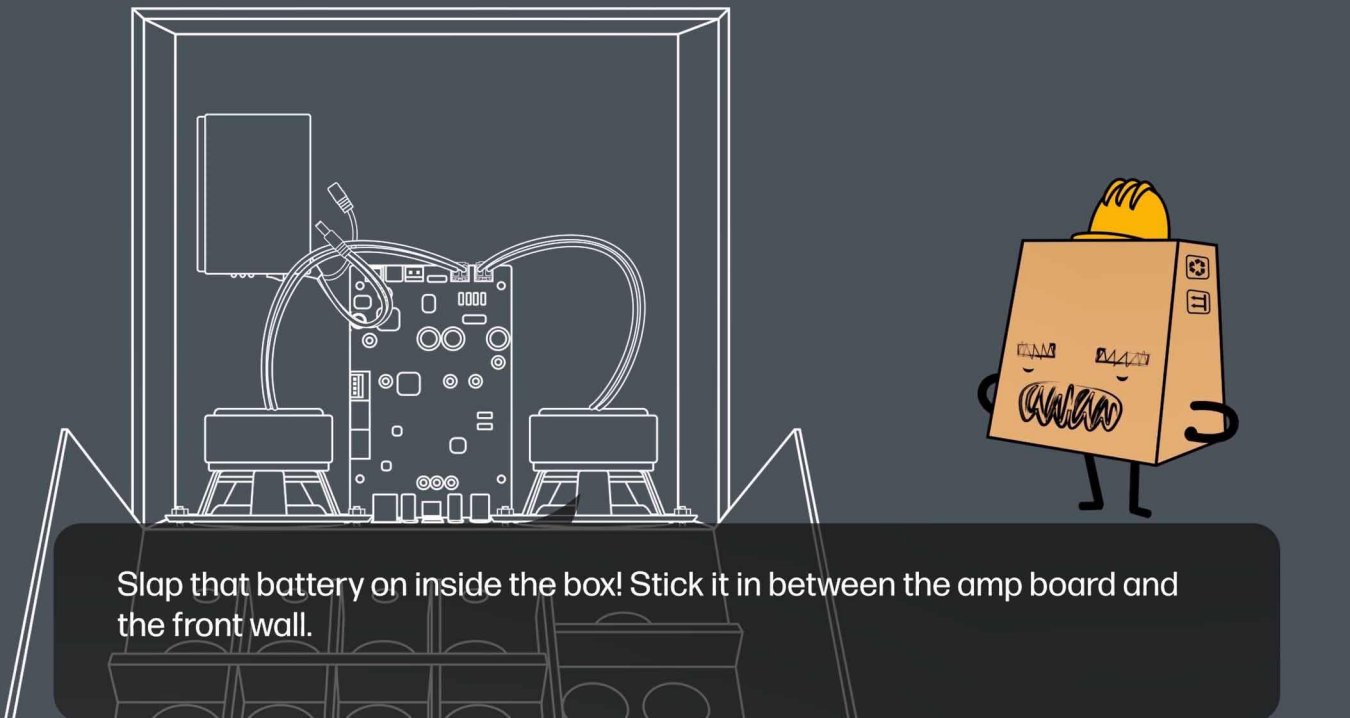
Go ahead and peel that tape off. Sooo satisfying!



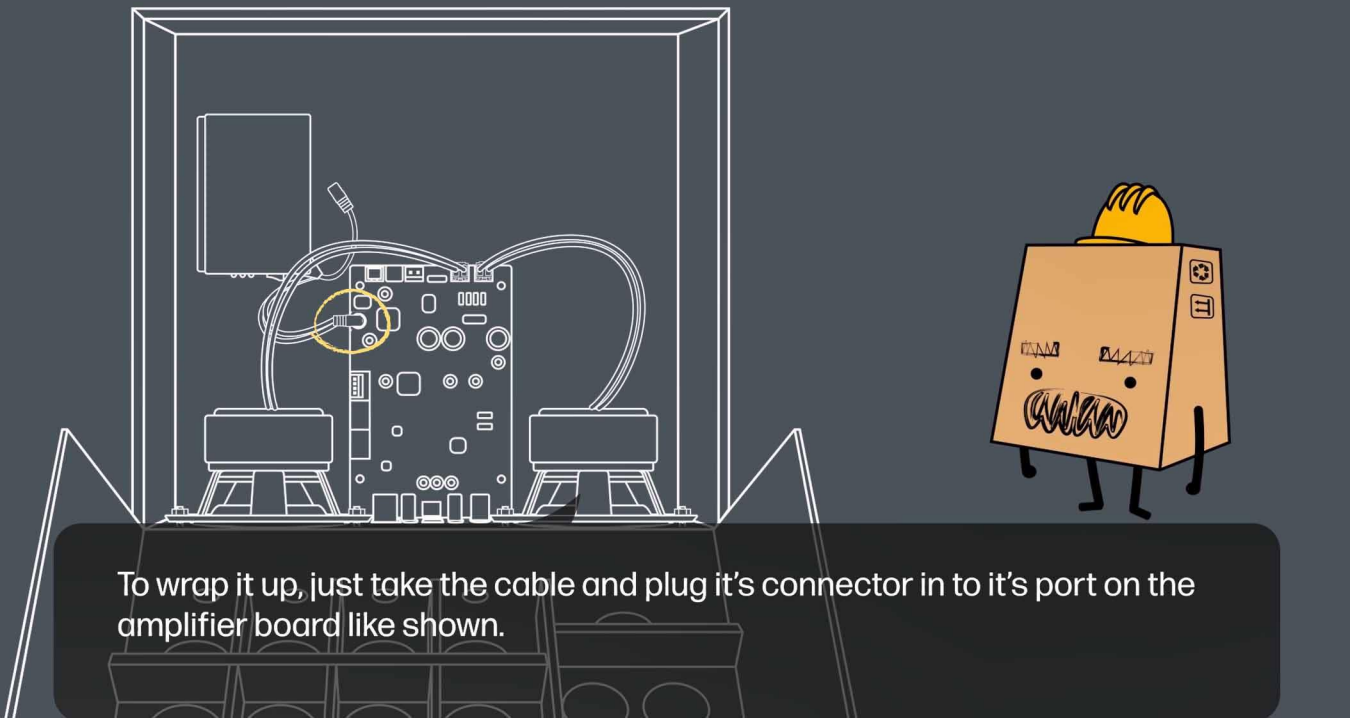
Flip flop the battery back belly over so that the sticky side is facing down looking at the inside of the box.



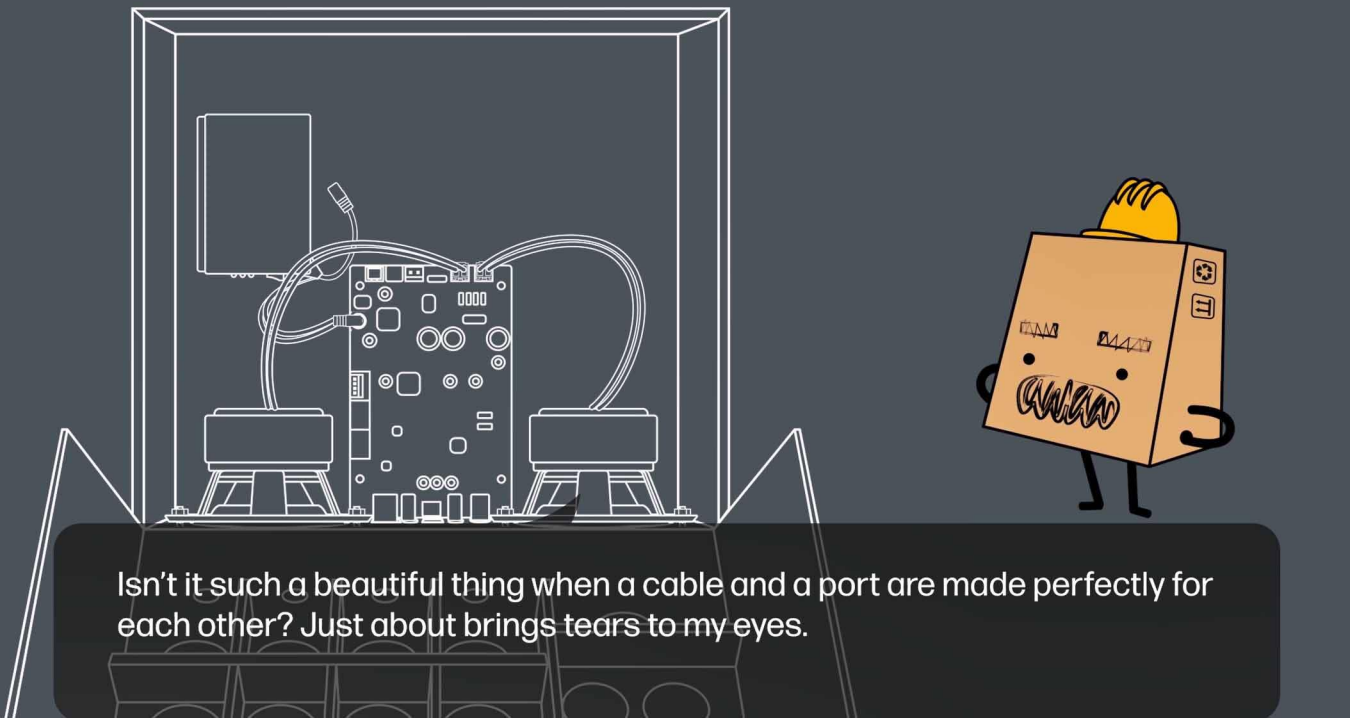
Rotate the battery so that the cable is sticking out of the lower left hand corner.

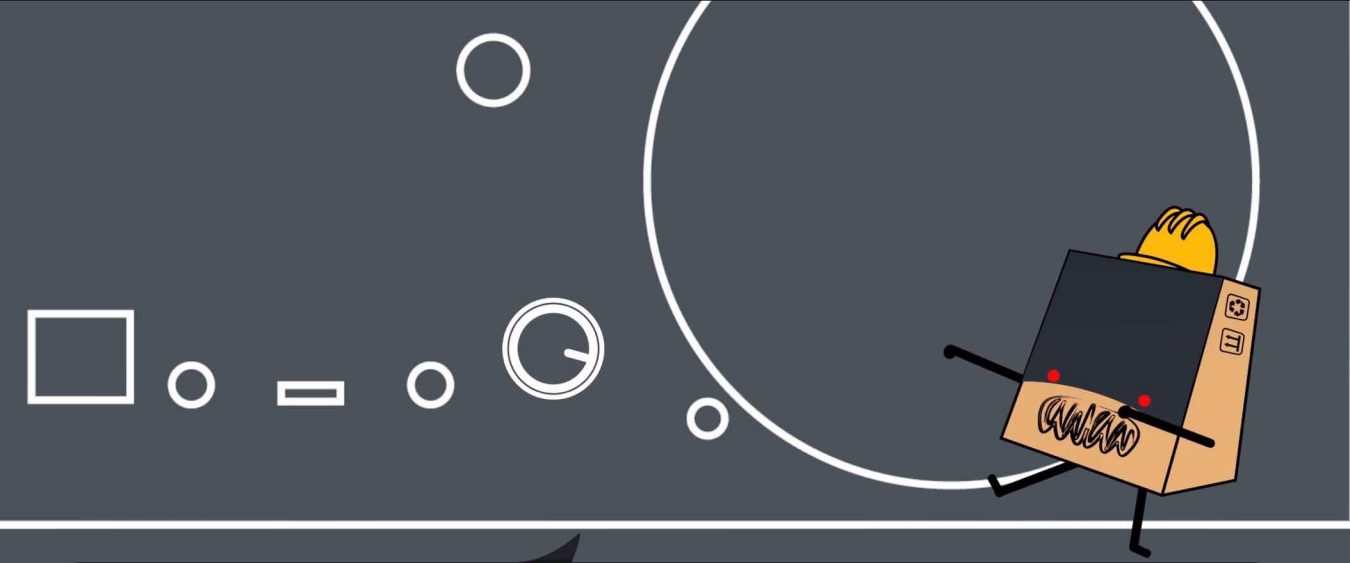


Slap that battery on inside the box! Stick it in between the amp board and the front wall.



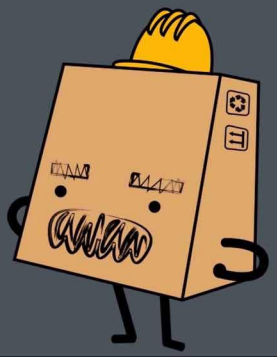
To wrap it up, just take the cable and plug it's connector in to it's port on the amplifier board like shown.


Isn’t it such a beautiful thing when a cable and a port are made perfectly for each other? Just about brings tears to my eyes.

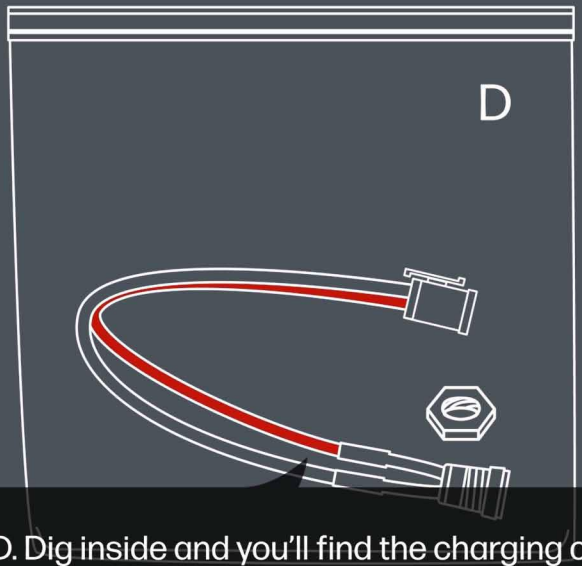


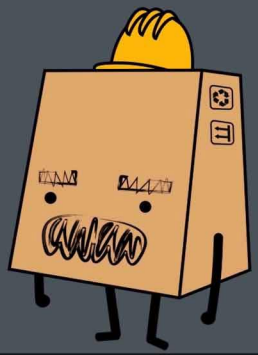
POWERRR --- ONNN! IT'S ALIVE!! Turning the knob to the right now turns on the box, but make sure to keep it off for the rest of the assembly!

05. Charging Port

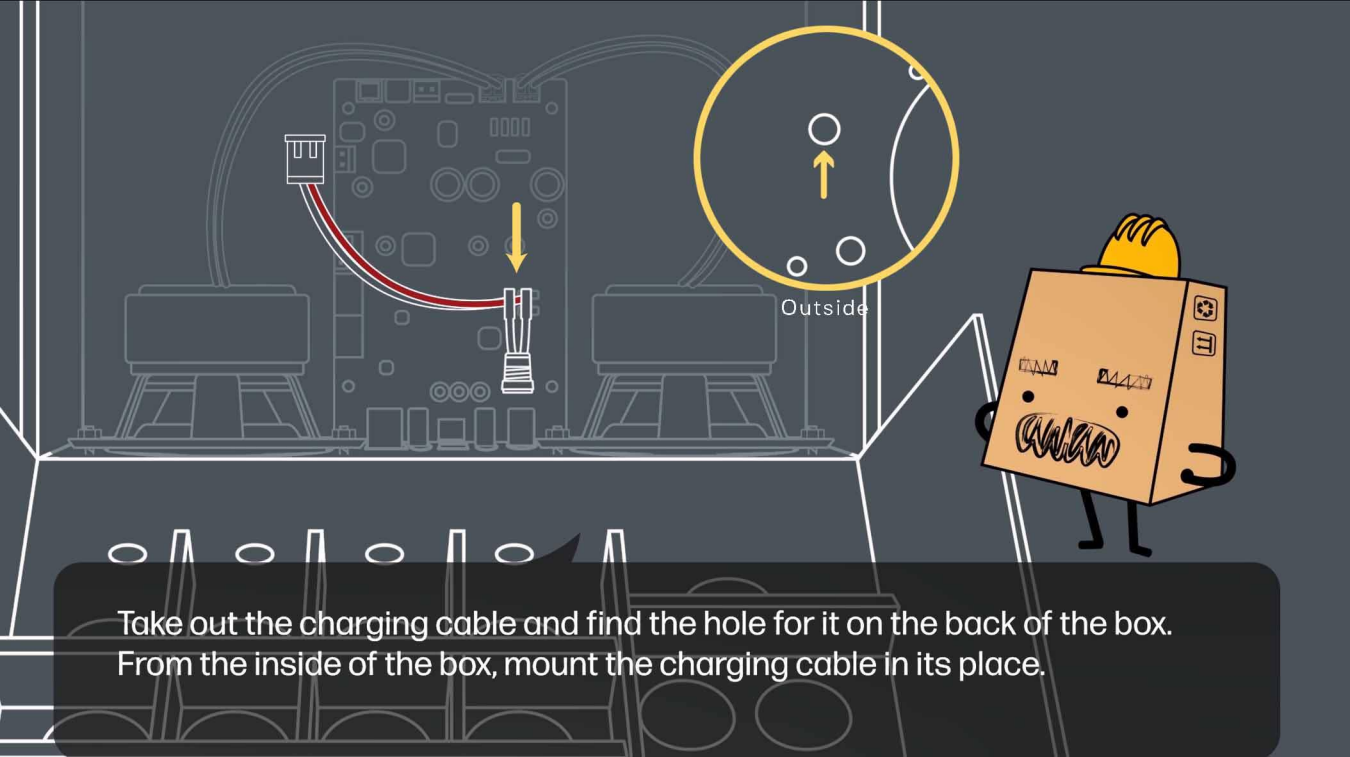


Alrighty, are you ready to tackle the charging port? I hope so because it's coming up next!

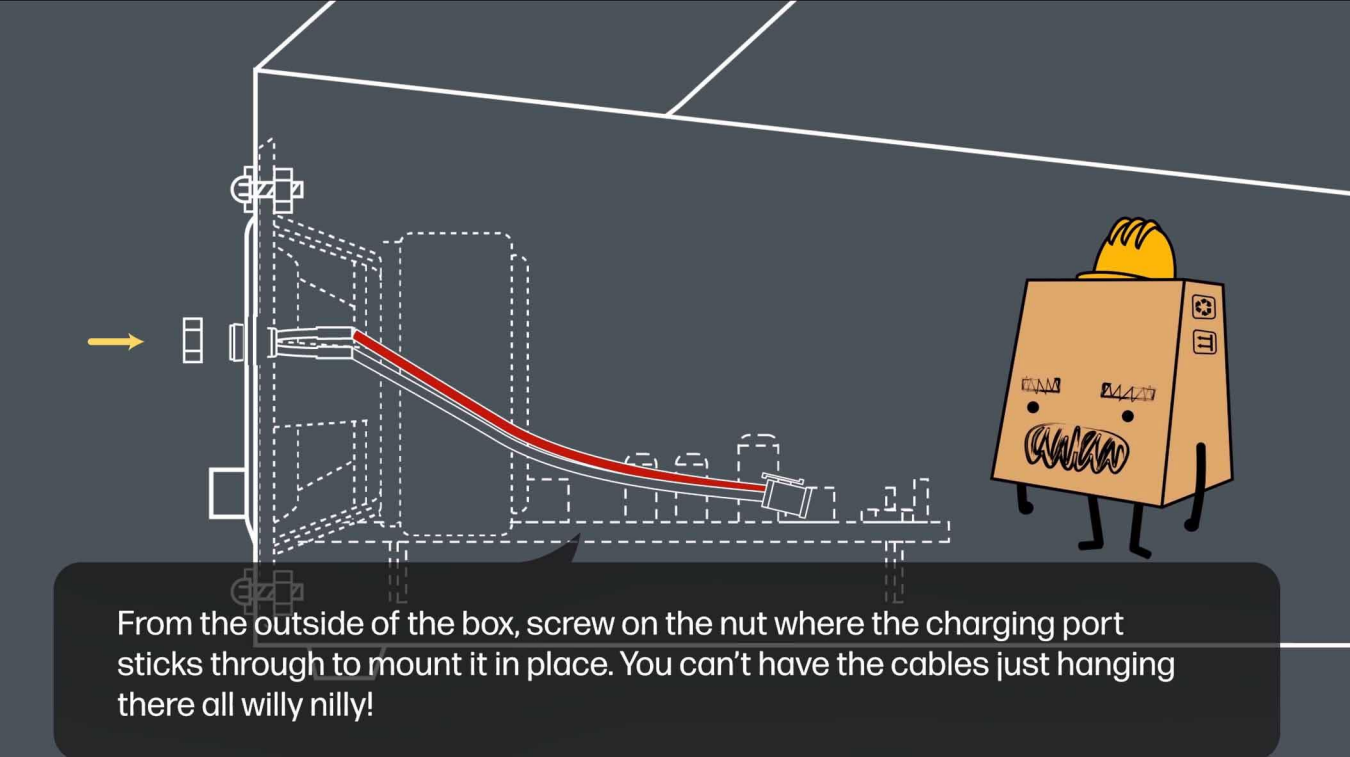


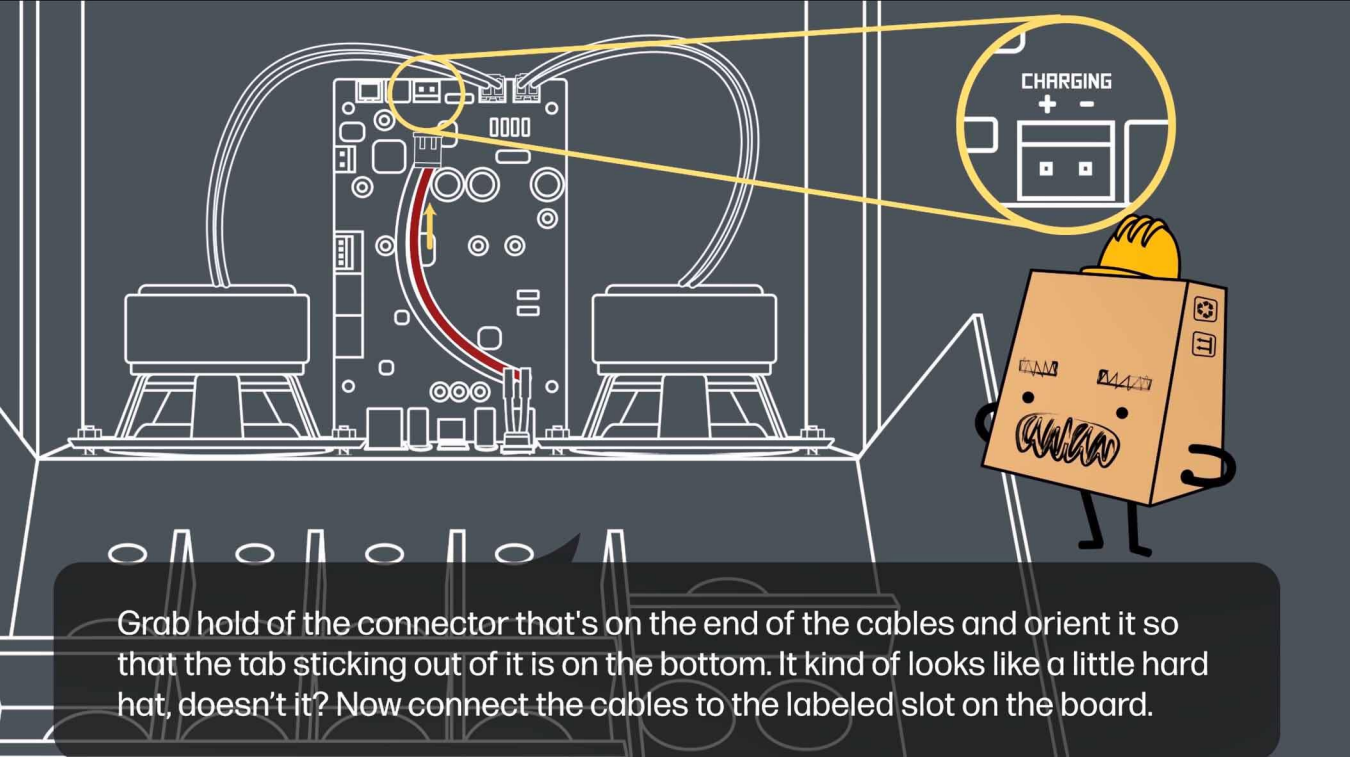


Grab Bag D. Dig inside and you'll find the charging cable and a washer.



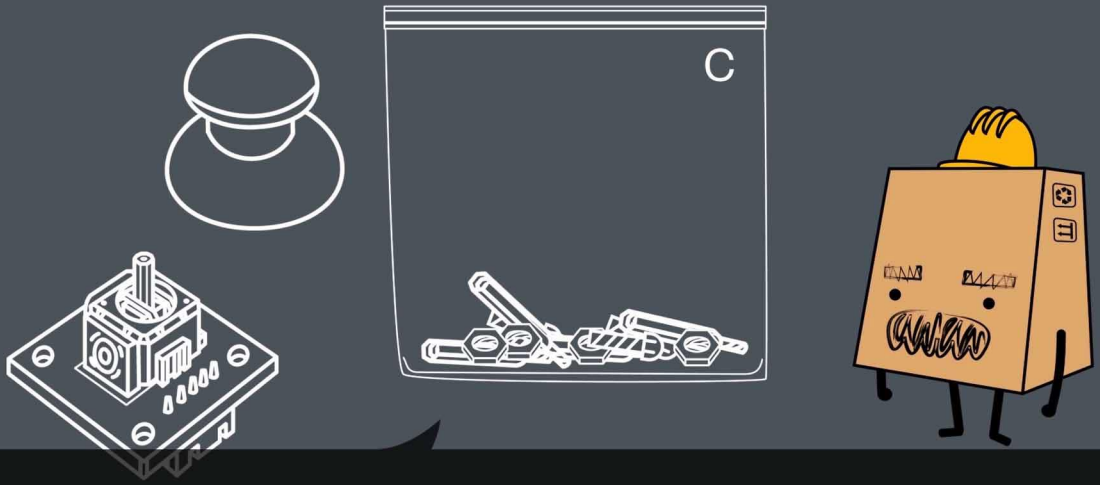
Take out the charging cable and find the hole for it on the back of the box.
From the inside of the box, mount the charging cable in its place.


From the outside of the box, screw on the nut where the charging port sticks through to mount it in place. You can't have the cables just hanging there all willy nilly!

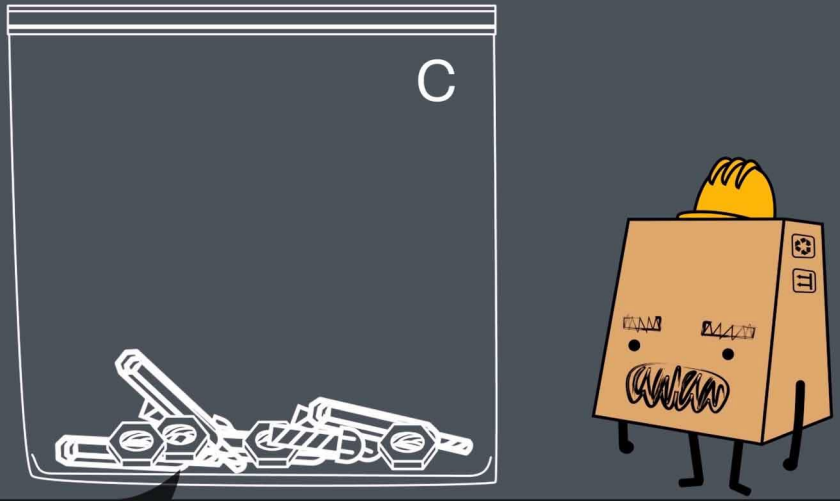


Grab hold of the connector that's on the end of the cables and orient it so that the tab sticking out of it is on the bottom. It kind of looks like a little hard hat, doesn't it? Now connect the cables to the labeled slot on the board.

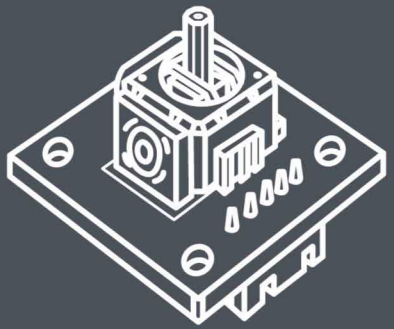
06. Joystick

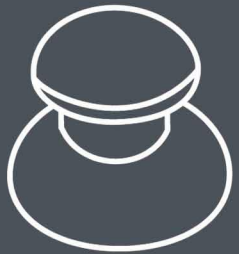


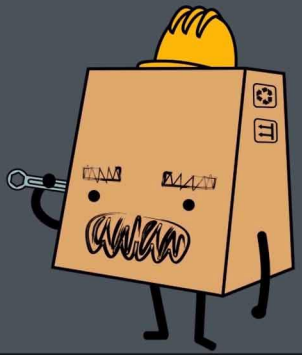
For this step you'll need: Bag C, the joystick board, and the joystick cap.



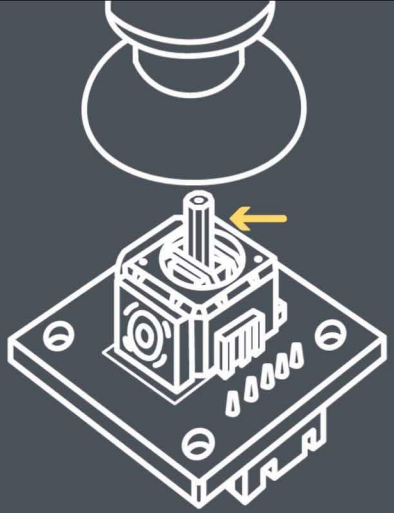
Bag C holds some standoff, screws, and nuts. That's one metal-y trail mix.

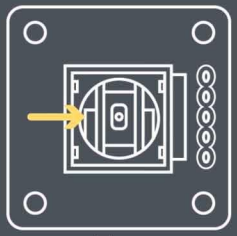




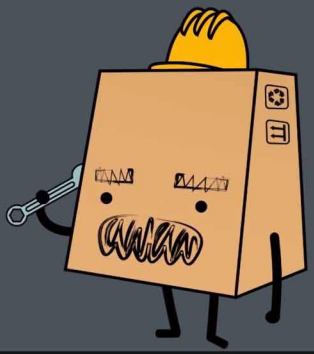


First you'll wanna attach the joystick cap to the board so grab both of those guys.

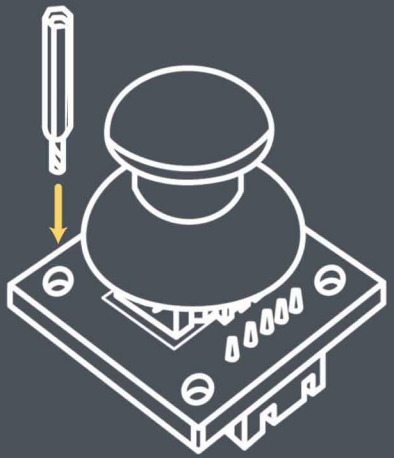


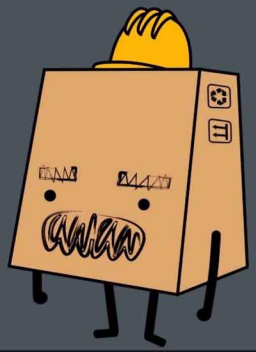


Top

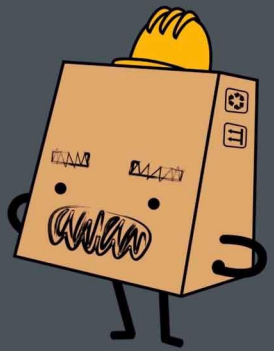


Take the cap, align it to the grooves on the stick and snap it on to the board.
Let me tell ya, it sure is a satisfying snap.

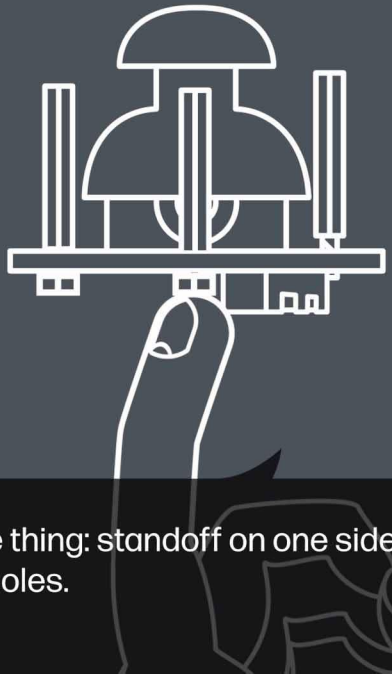


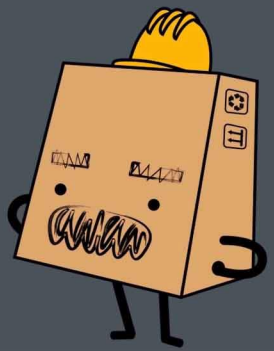


Next, you're going to put a standoff in one of the holes on the side of the board you just snapped the cap on to.

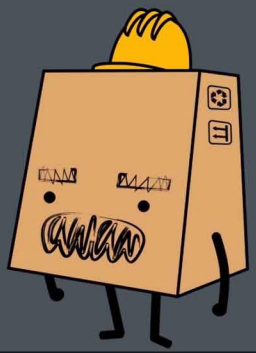


On the other side of the board, use a finger to hold a nut to the standoff. Then screw the standoff in, just like you did on the amplifier board.

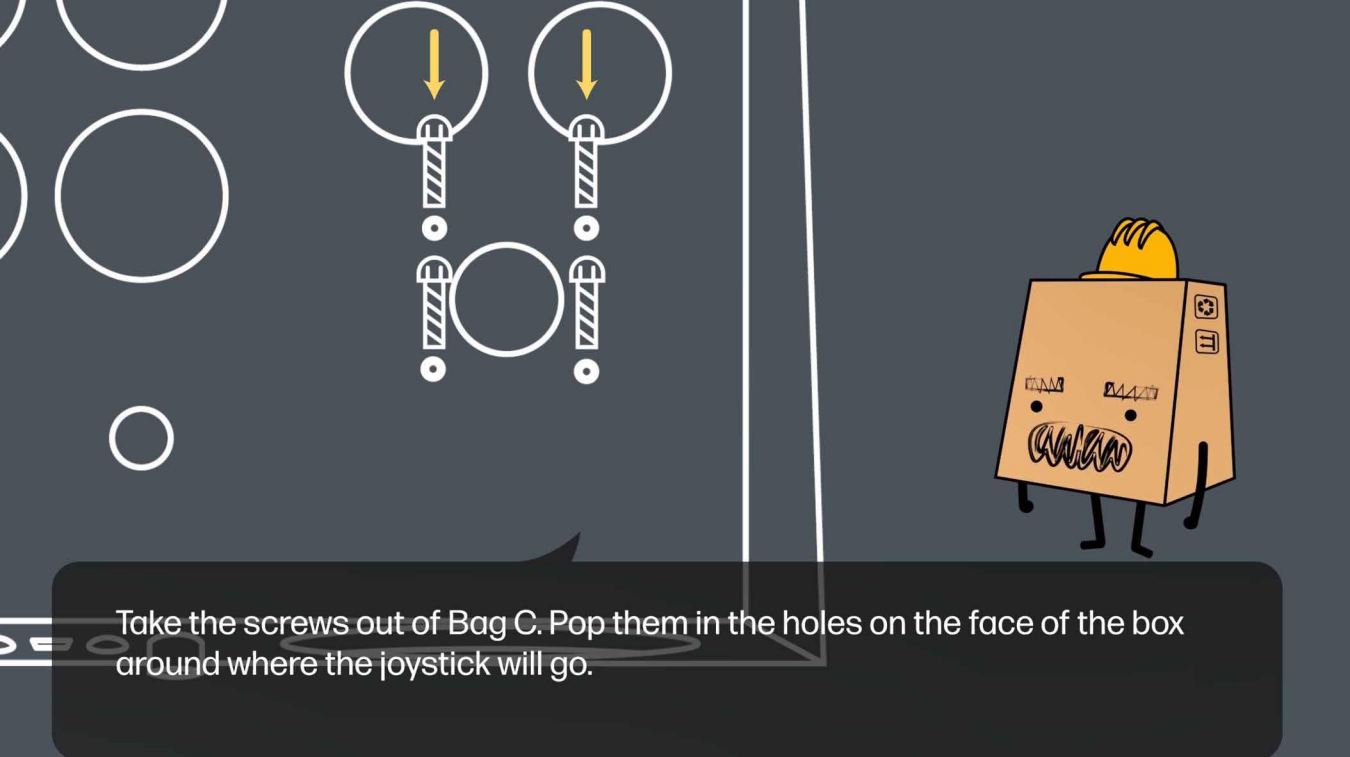


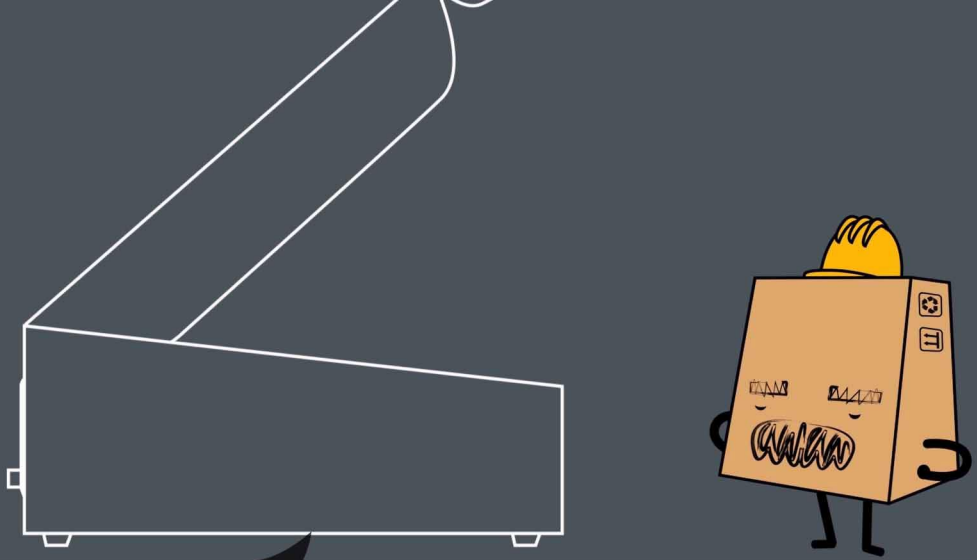


Do the same thing: standoff on one side, nut on the other, then screw, for the other 3 holes.

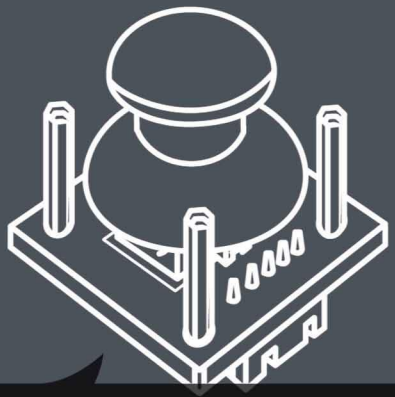


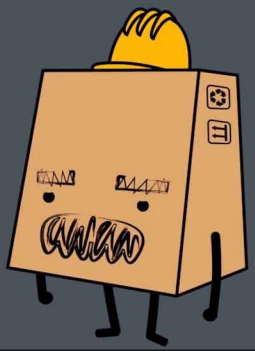
Now put that little buddy over to the side. Not too far off to the side, we'll be using it in a moment.


Take the screws out of Bag C. Pop them in the holes on the face of the box around where the joystick will go.

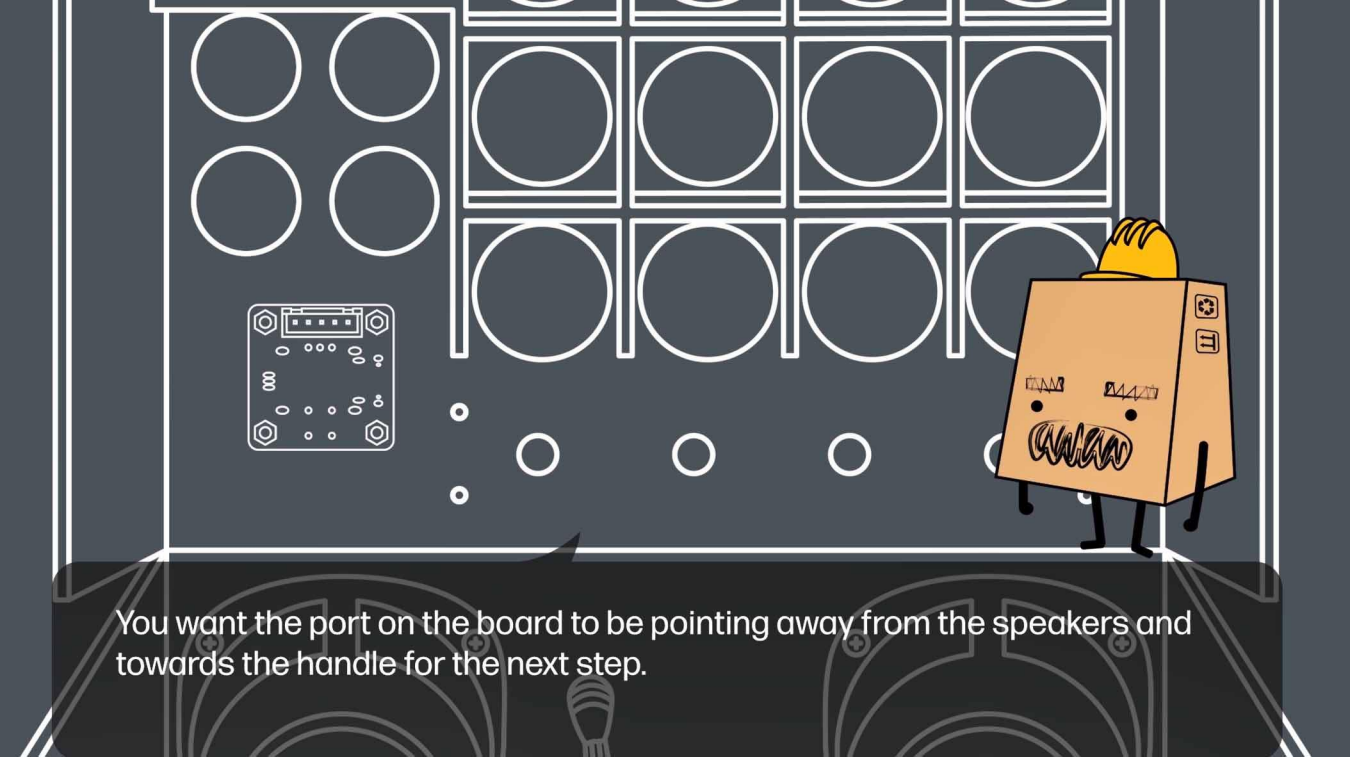


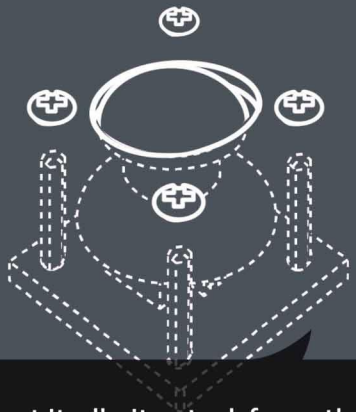
Prop open the box at a 45-60º angle. If you prop too over the top the screws will drop!

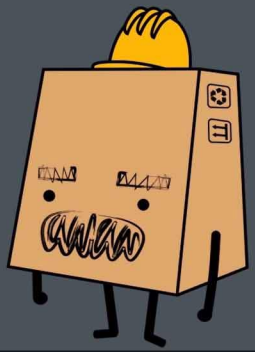




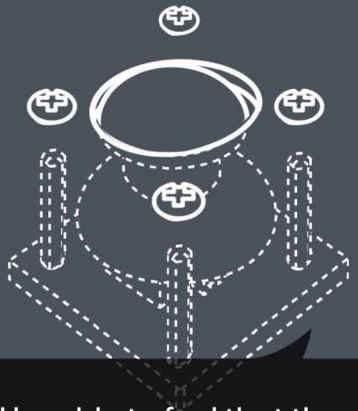
Time to grab the joystick again. I hope it's close by!

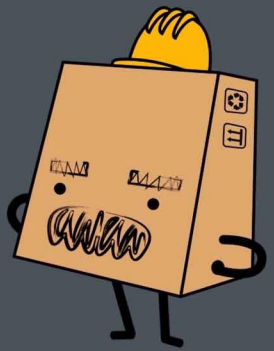

You want the port on the board to be pointing away from the speakers and towards the handle for the next step.



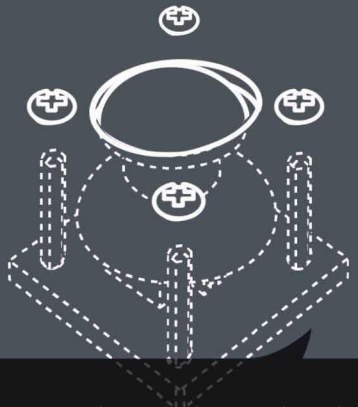


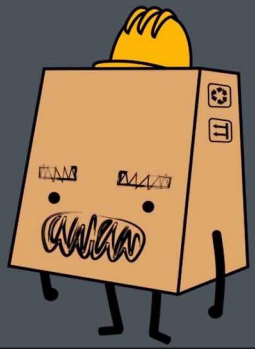
Once you got it all situated, from the inside of the box stick the cap part through the joystick hole.



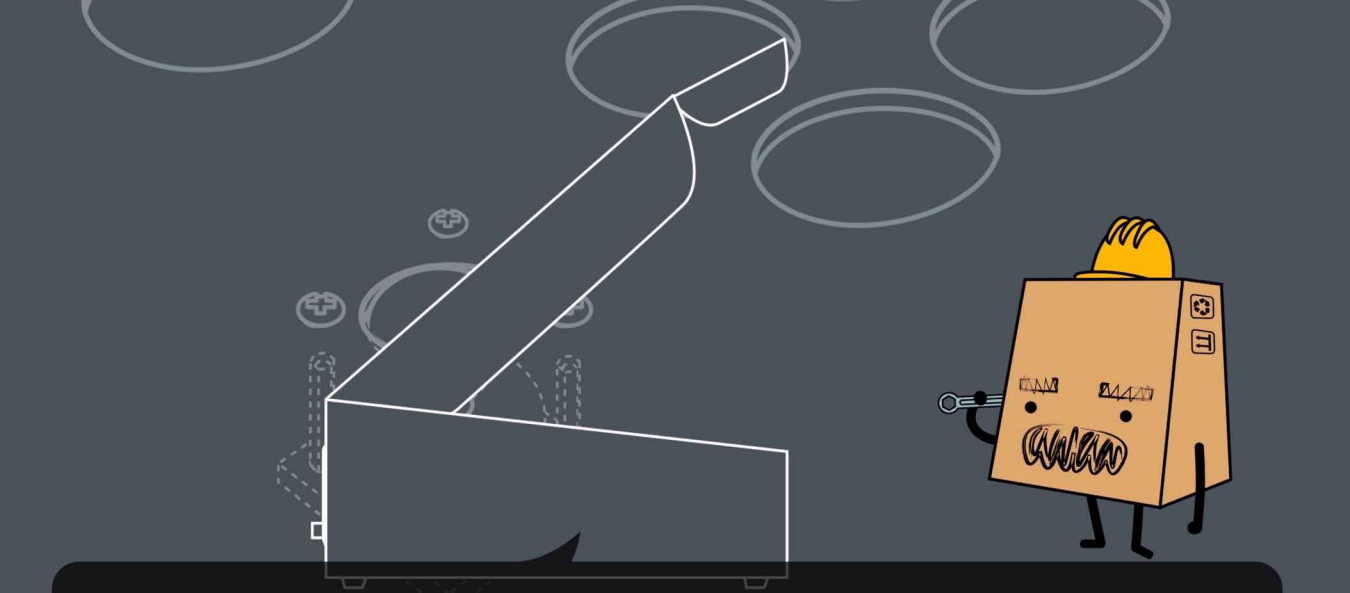


You should be able to feel that the screws are already in the standoffs a little bit.

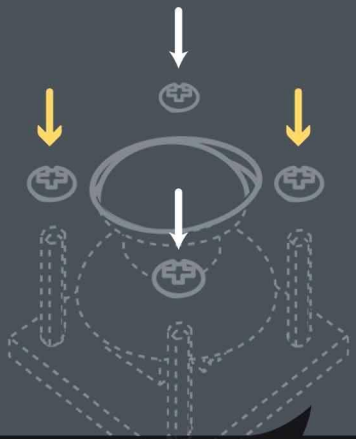


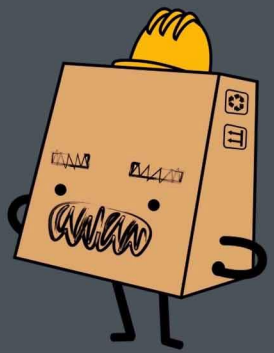


The whole joystick unit thing shouldn't be moving out of place since the screws are guiding the standoffs.

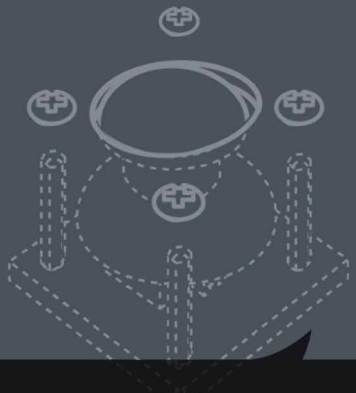


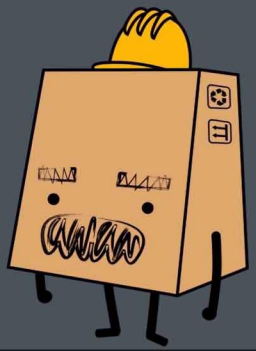
Keep that box at 45-60º angle! I don’t wanna catch you slacking on that.



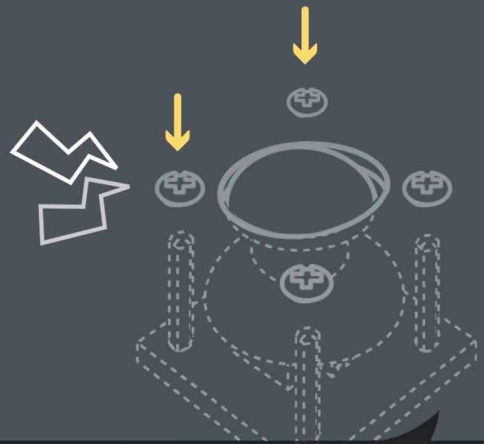


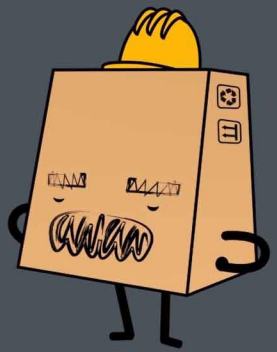
I'm gonna give you some advice, handyman to handyman, to help you with this next step: Screw the screws in following a diagonal pattern.



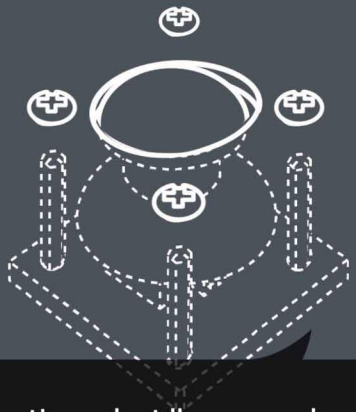


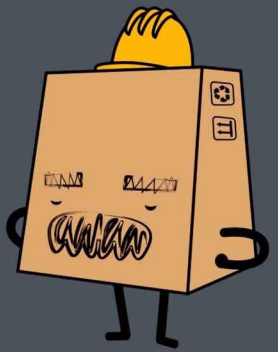
This means after you screw in your first screw, screw in the one diagonal from it next instead of just hopping over the one next to it.



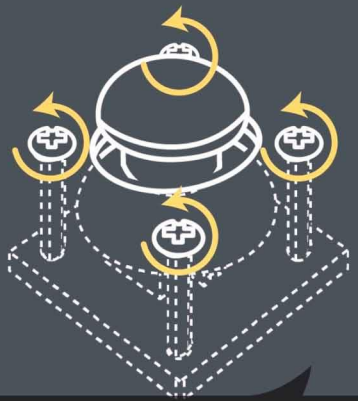


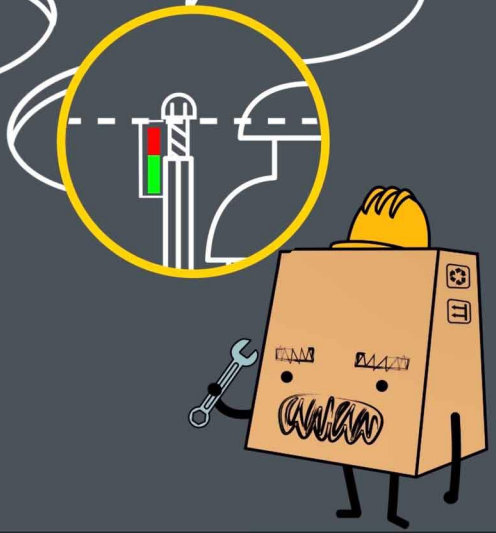
If you screw in a consecutive pattern instead of diagonally you can end up with one side that is too tight which will cause the other side to kink up; then the screws you want to put in next won't go in!



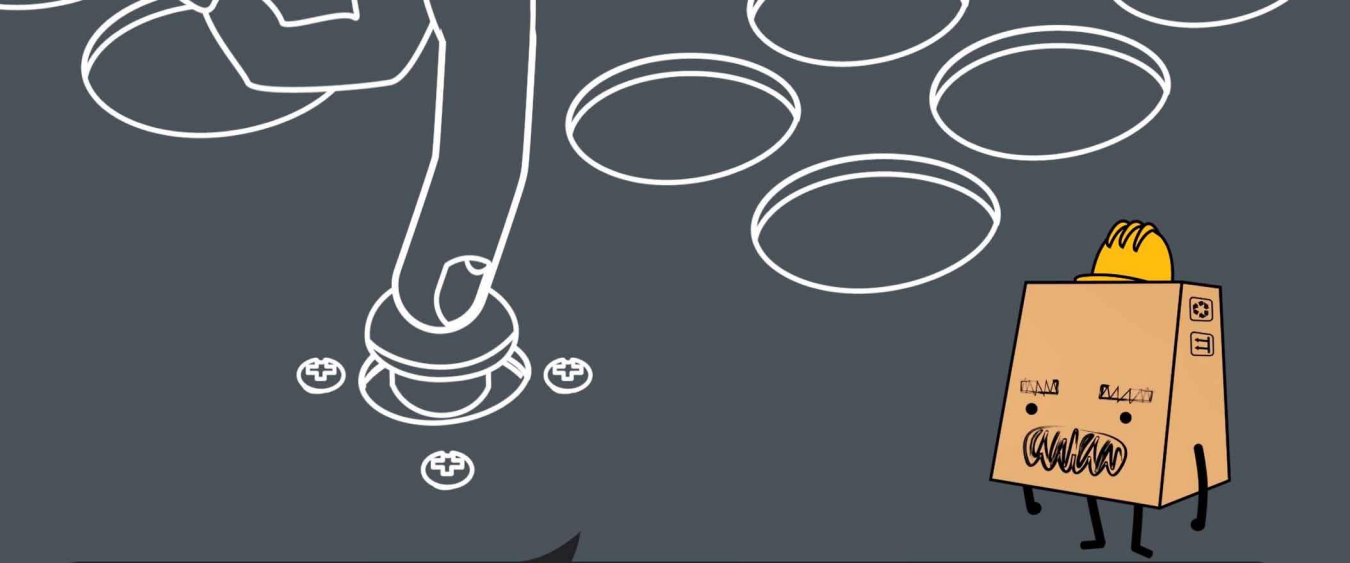


Time to practice what I've preached! First, make sure the screws are in the standoff grooves.





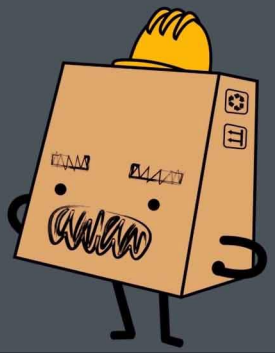
Once you've checked that box, gently screw the screws in following the diagonal pattern we discussed. It's ok if you feel some resistance against your fingertips!



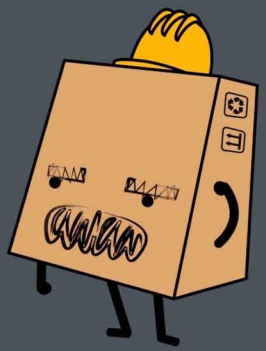
After you've screwed all the screws, press your finger tip to the top of the screw cap.

Jimmy that thing all around to make sure it has a fluid range of motion.

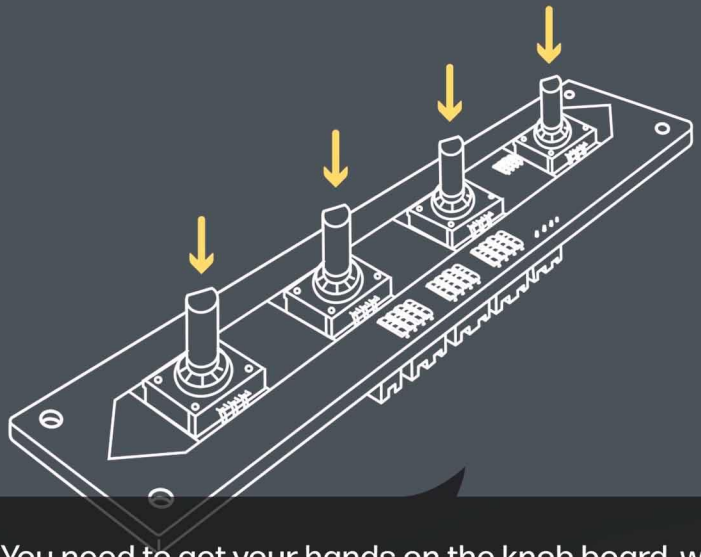
07. Knob Board

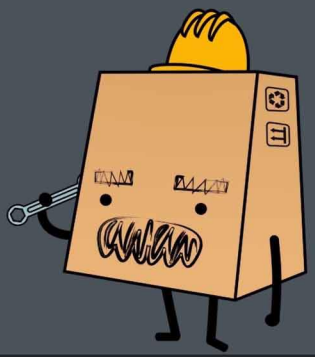


Choo choo! All aboard for the knob board!

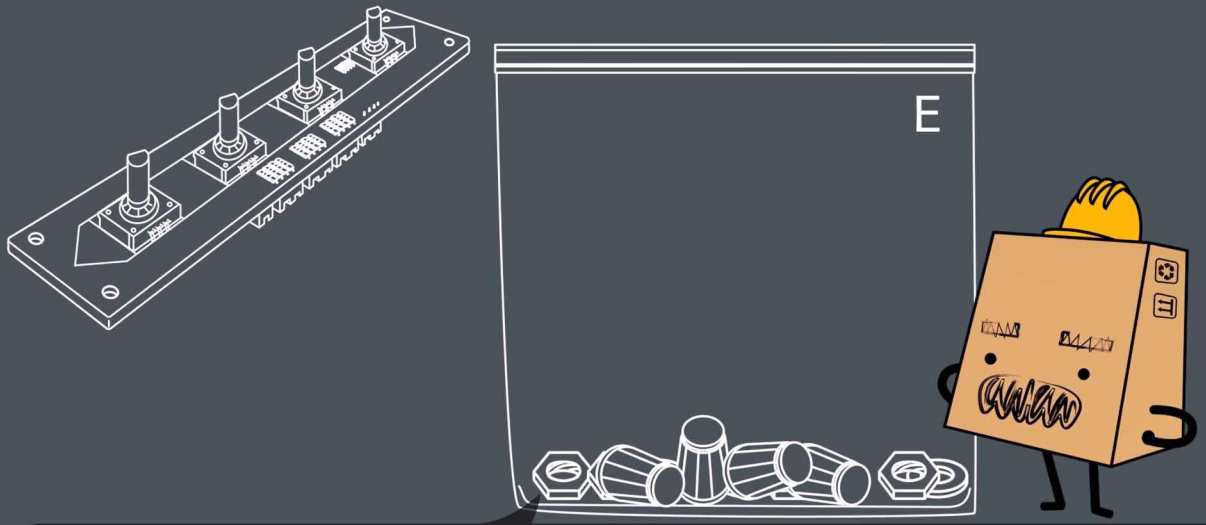


Get it? ... Let's just keep chugging along.

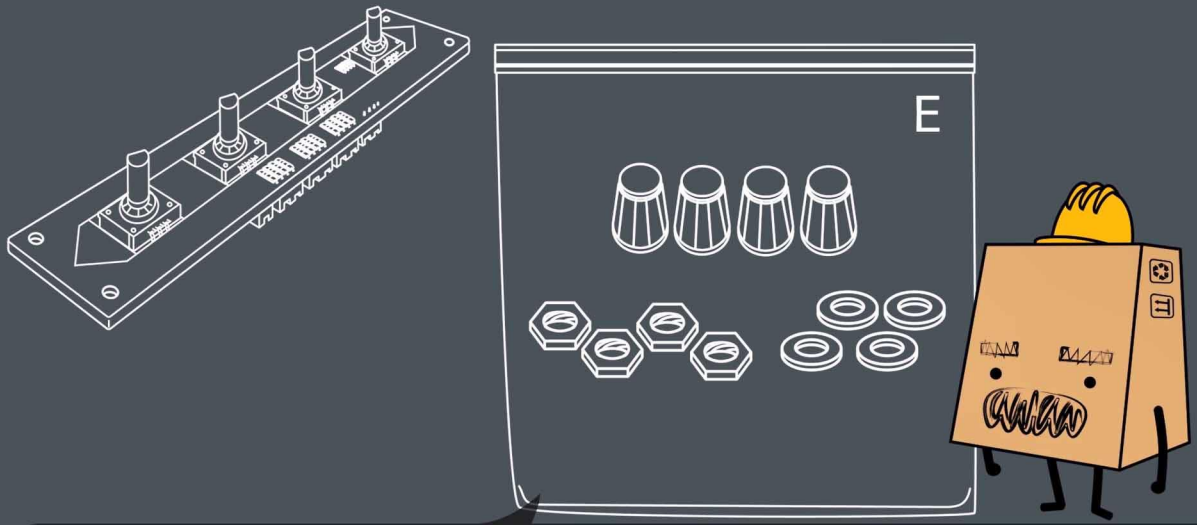




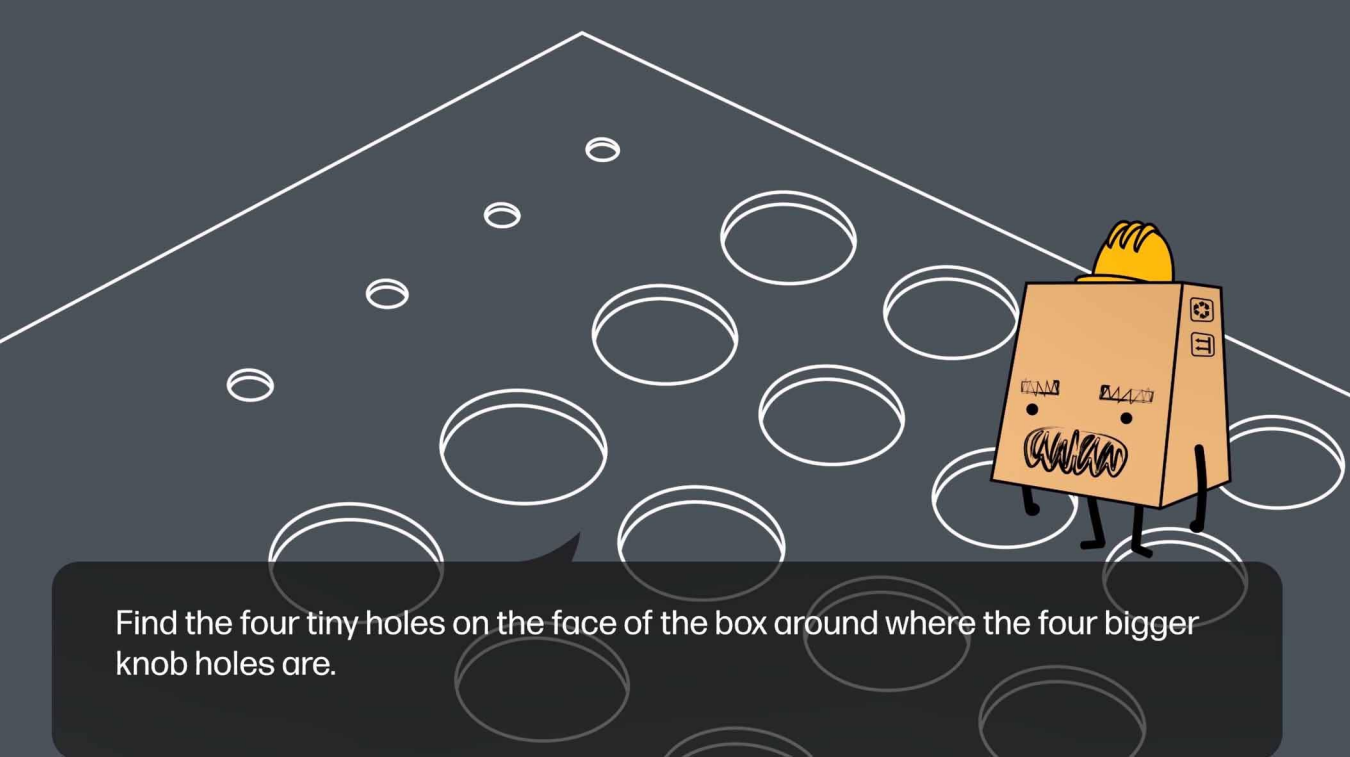
You need to get your hands on the knob board, which is the board that has the four knobs sticking out of it. It is not trying to be something it is not and I think we can all appreciate that.

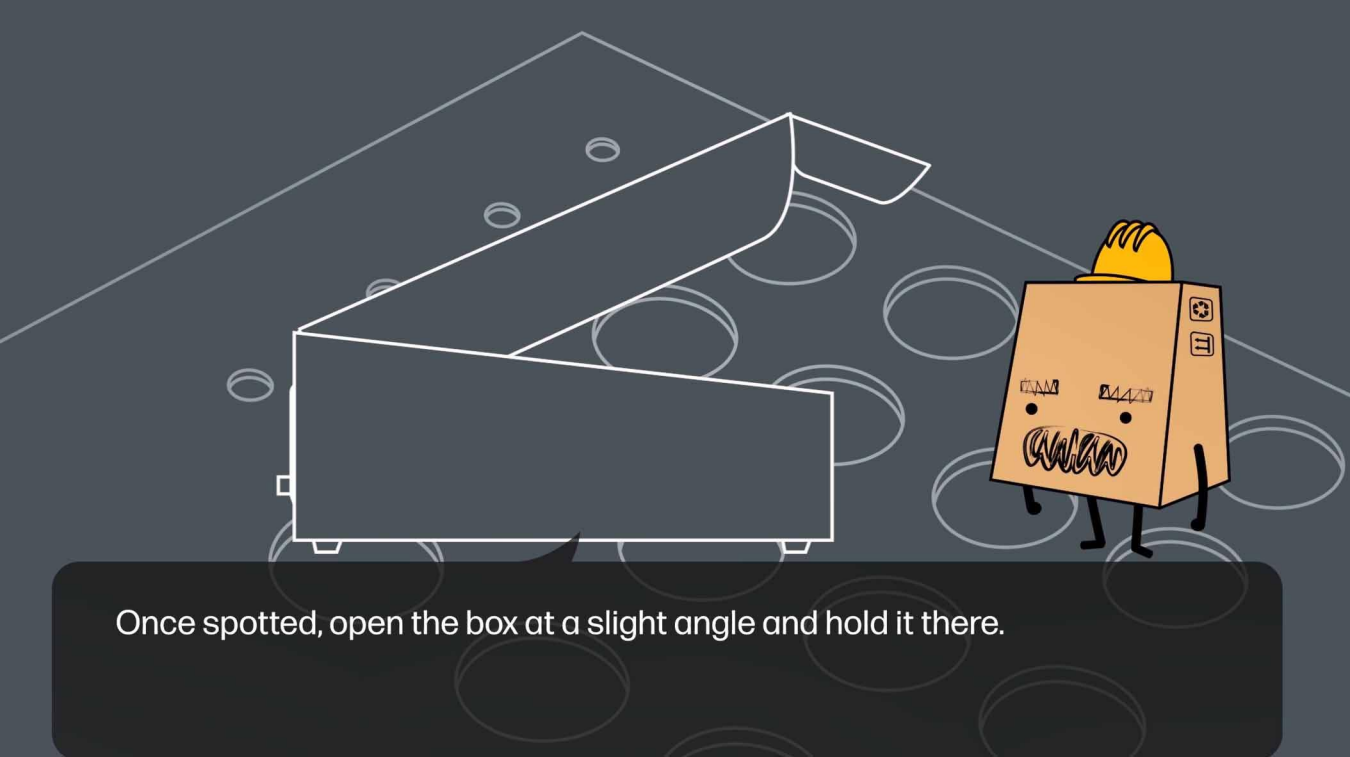


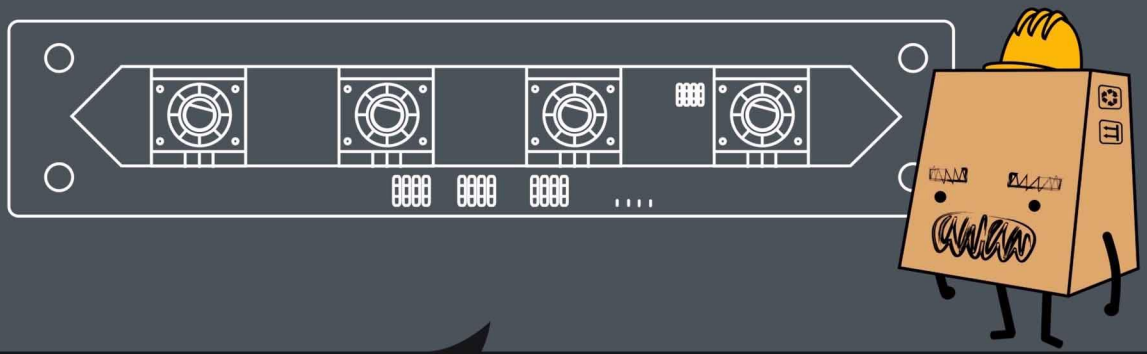
They say 3 is a magic number, and I think they're right because you have one more thing to locate and that is Bag E!



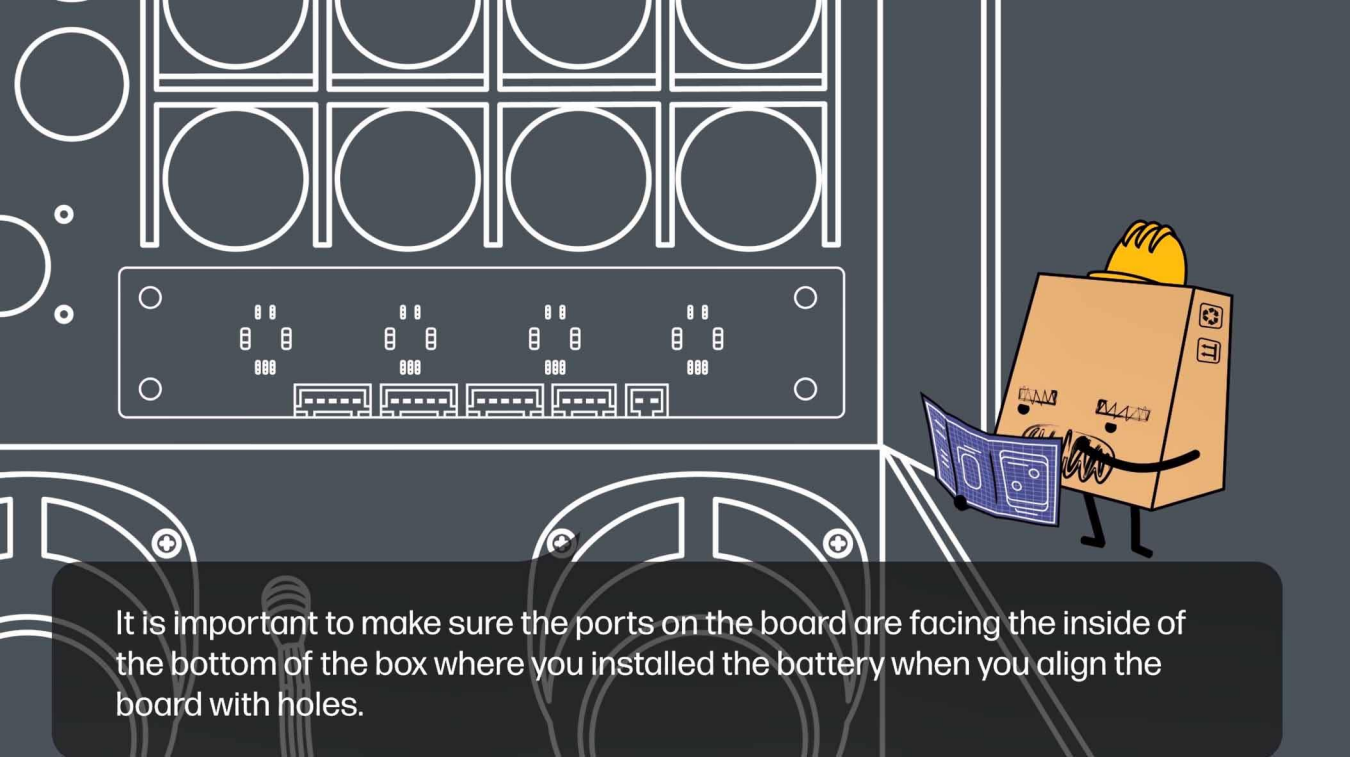
Peek inside and you'll discover that it's filled with nuts, washers, and knob caps. That's my kind of jackpot!


Find the four tiny holes on the face of the box around where the four bigger knob holes are.


Once spotted, open the box at a slight angle and hold it there.

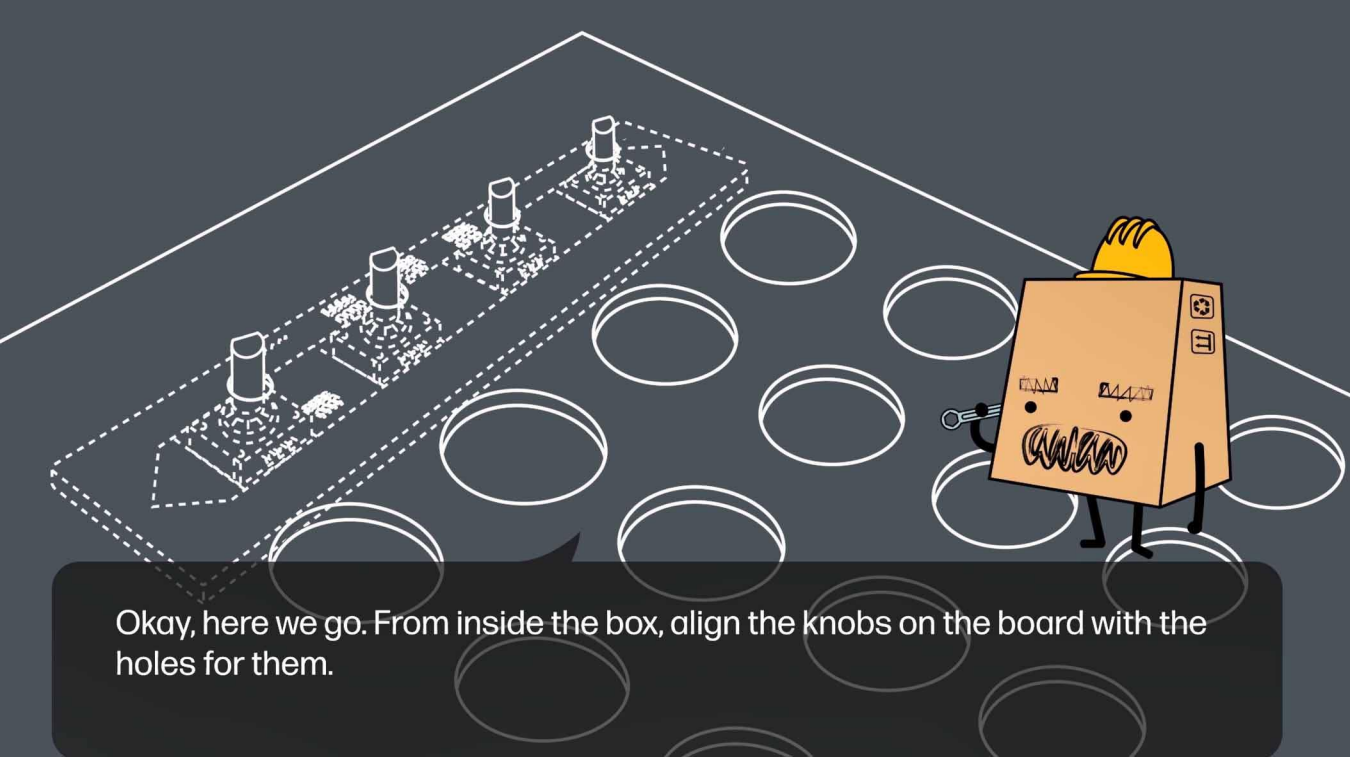


It's time to pick up the knob board again.



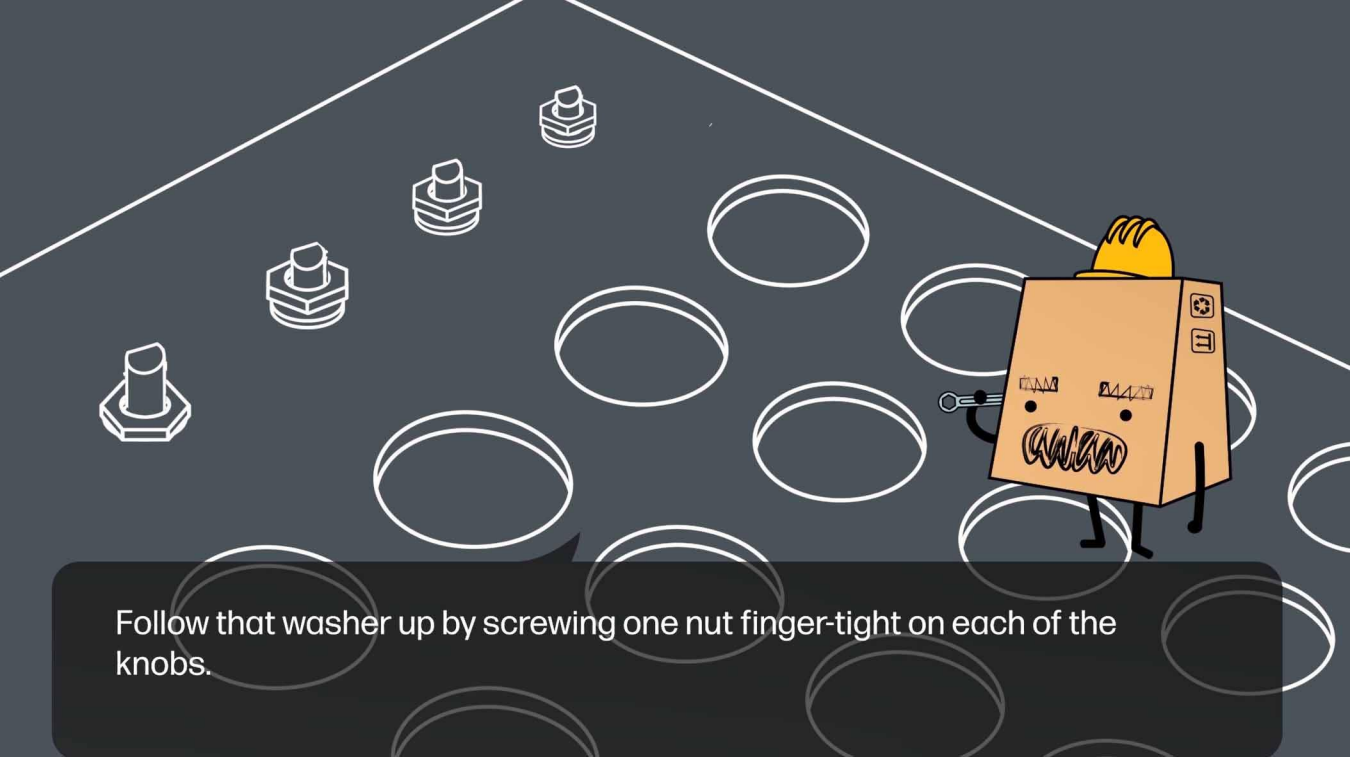
It is important to make sure the ports on the board are facing the inside of the bottom of the box where you installed the battery when you align the board with holes.

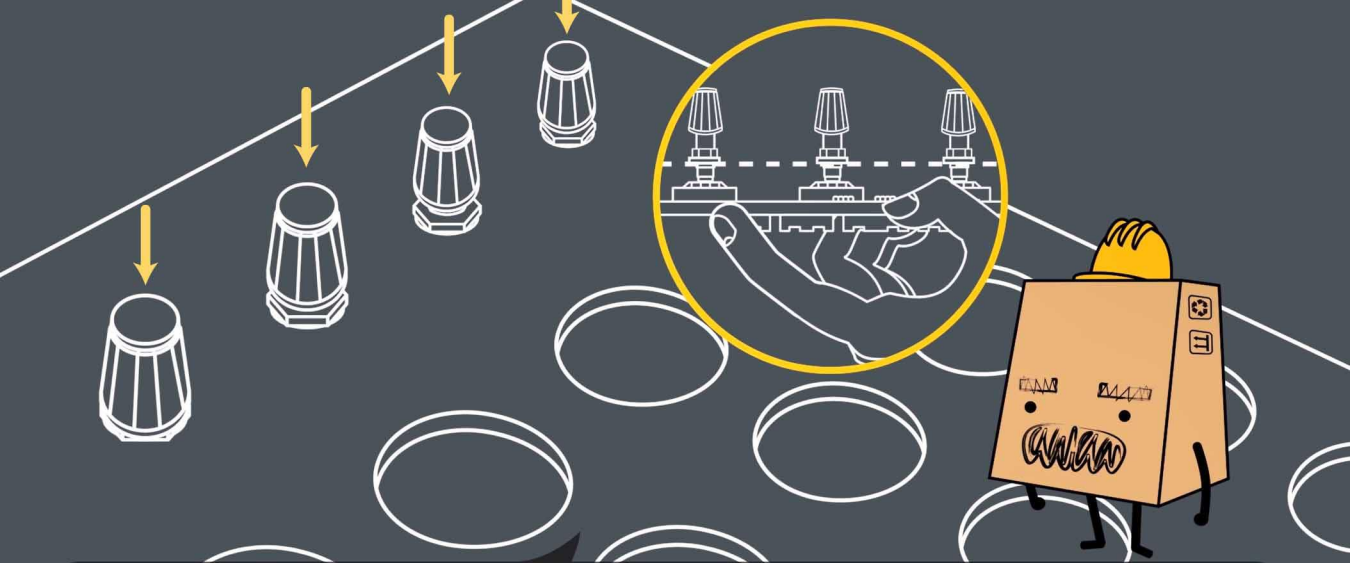

But wait, there's more! For the next step, you are just aligning the board with the holes. Do not stick it in yet!


Okay, here we go. From inside the box, align the knobs on the board with the holes for them.


Now you need to get the knob caps, washers, and screws, oh my!

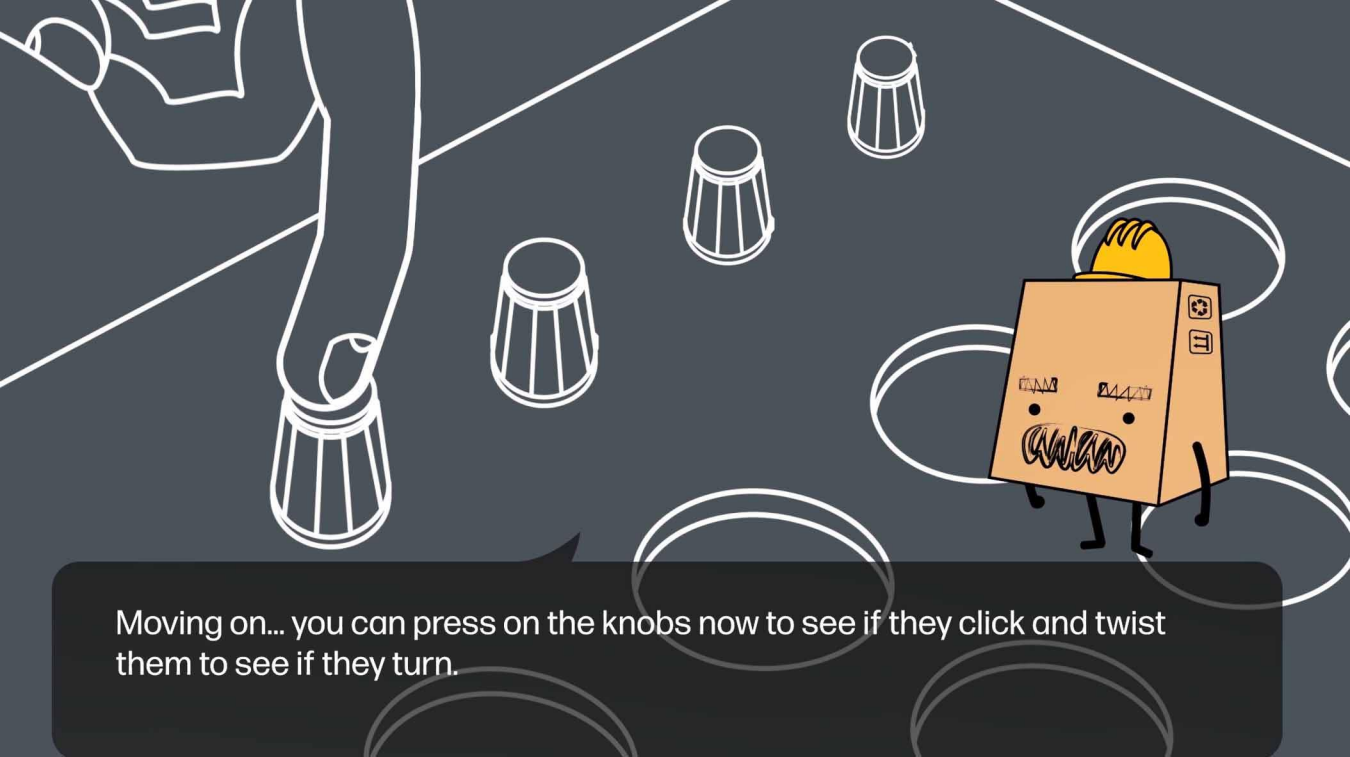

Coming from the outside of the box, go ahead and slide one washer onto each of the knobs.


Follow that washer up by screwing one nut finger-tight on each of the knobs.


Hold on to the board from the inside of the box as you stick the knob caps on from the outside.

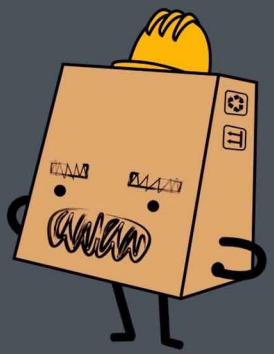

Don’t worry if they don’t go on all the way. It’s okay, they aren’t supposed to.


There needs to be a little gap since these here knobs are also buttons. They need to have some space to travel when pushed. We all need a little space when we feel pushed and that's alright!

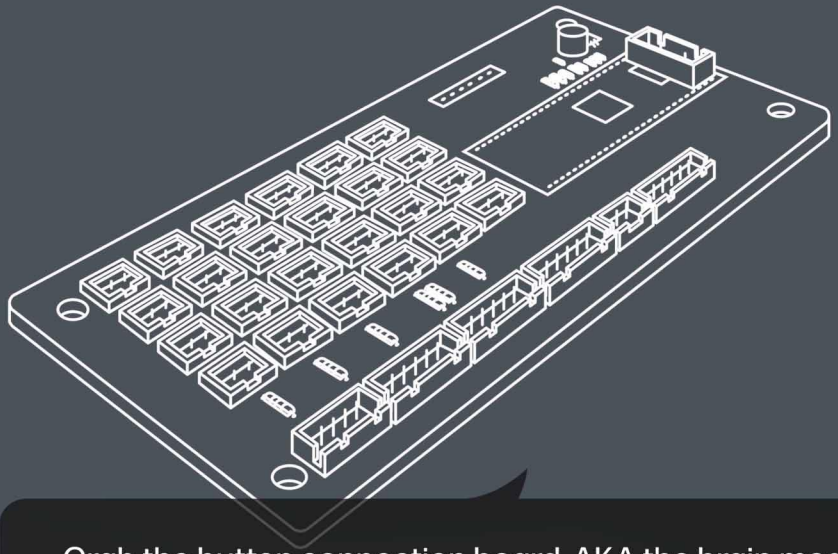

Moving on... you can press on the knobs now to see if they click and twist them to see if they turn.

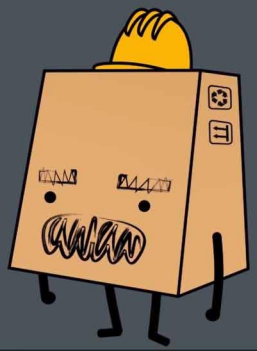

If you get a click and a twist then don't be humble and go ahead and give yourself a nice pat on the back. You deserve it!

08. Buttons

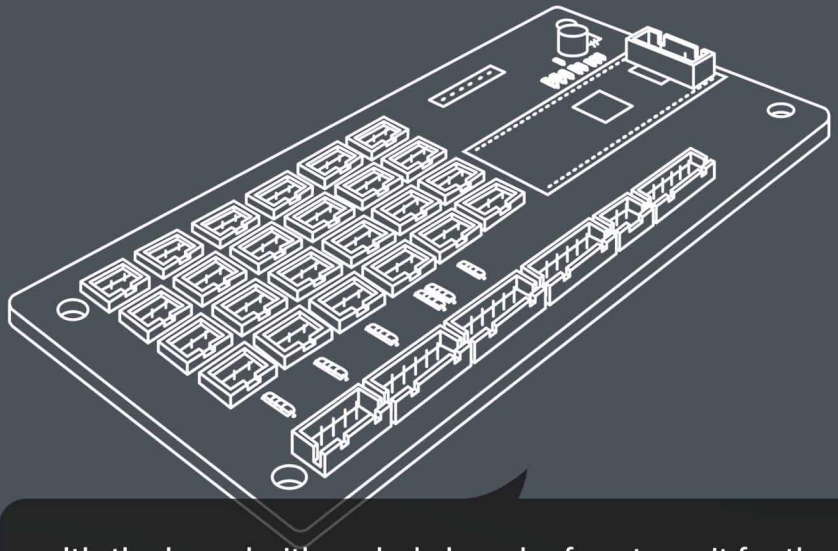


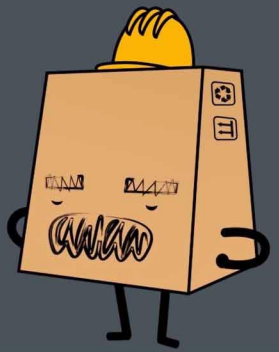
I hope I'm not pushing your buttons too much, but it is time to move on... to the buttons!



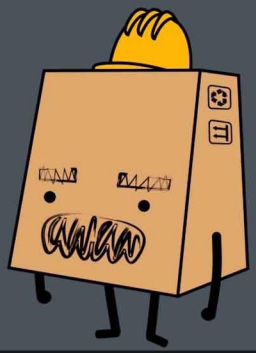


Grab the button connection board, AKA the brain module.

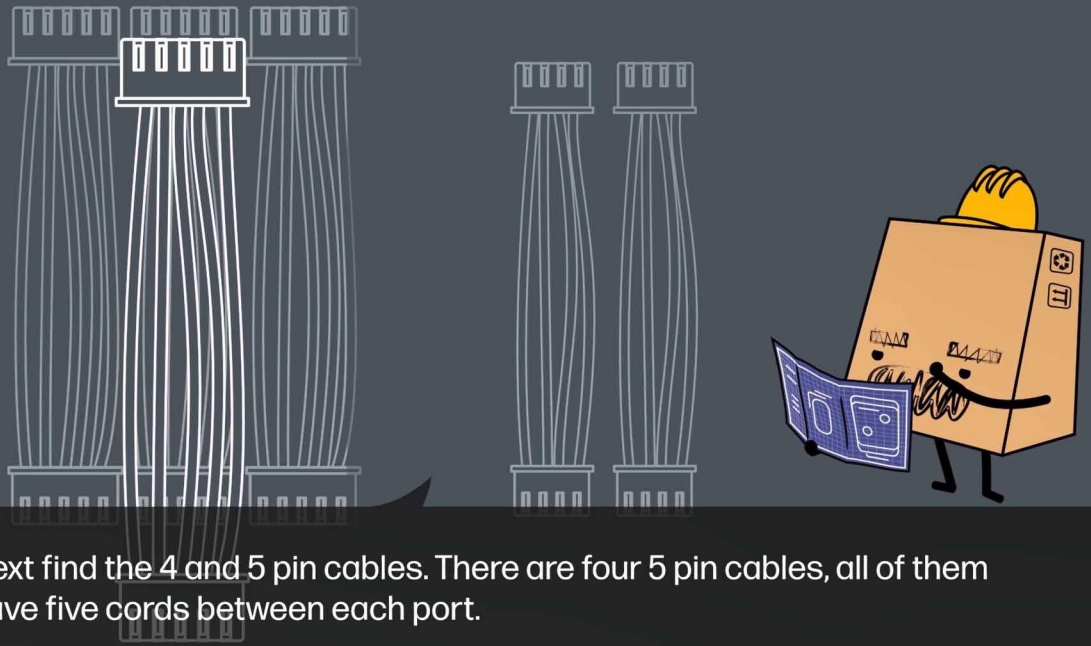


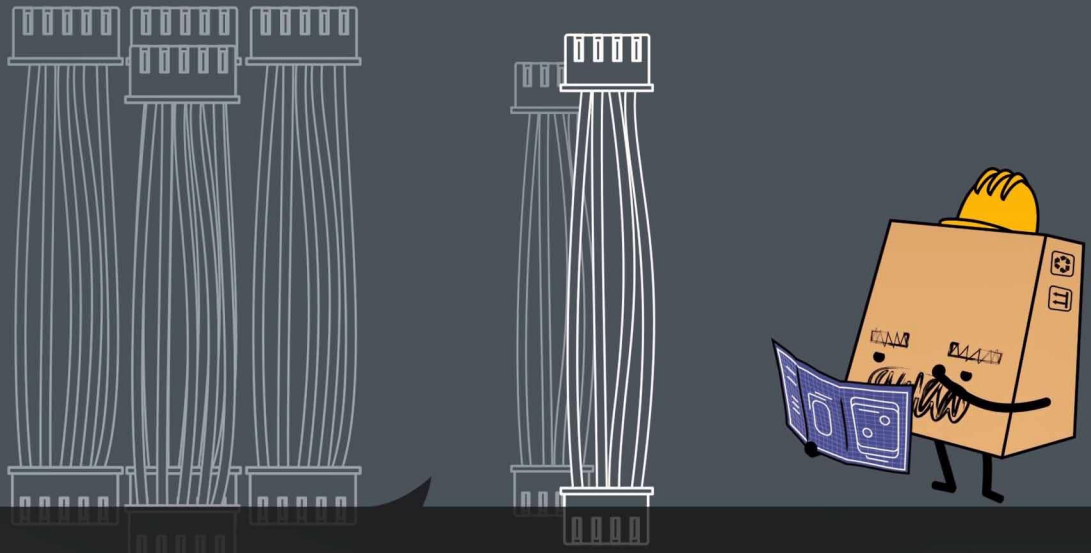


It's the board with a whole bunch of ports on it for the buttons to connect to. Really lives up to the name.

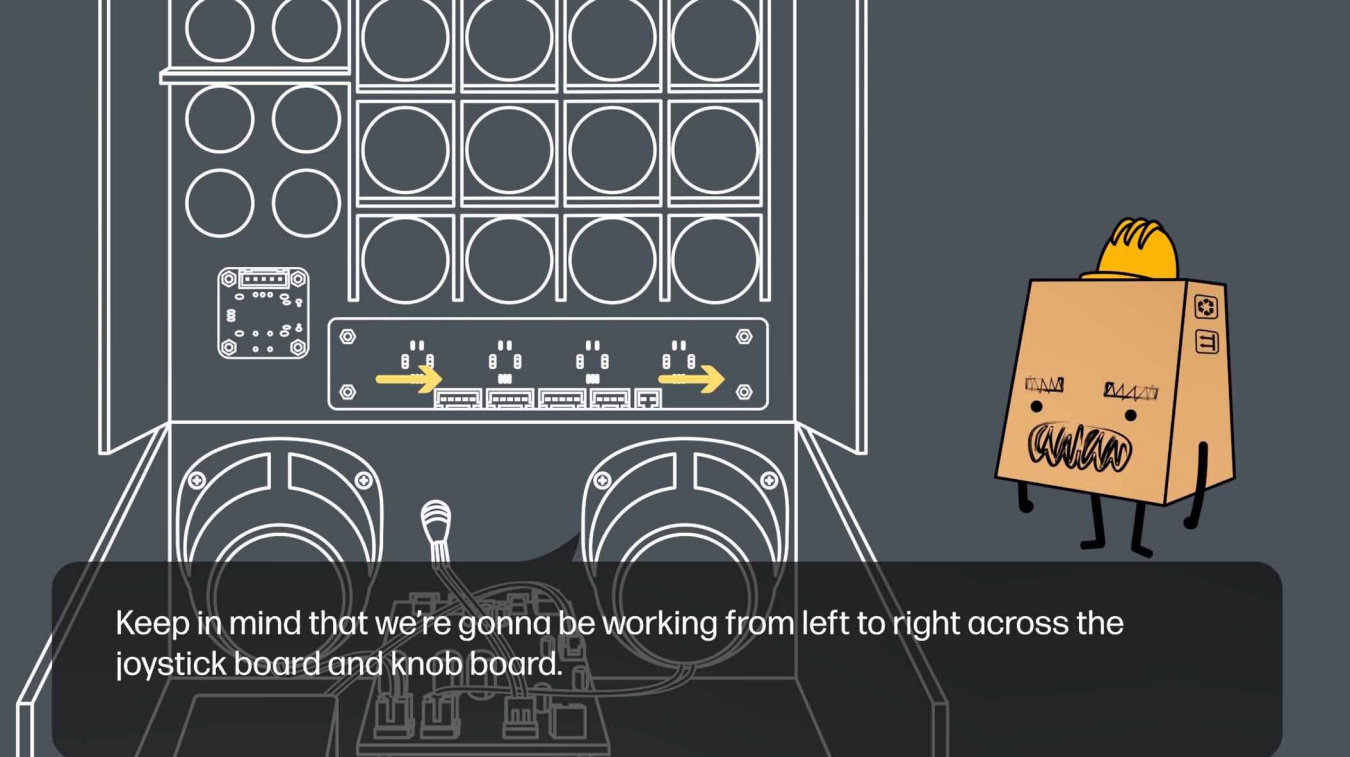


Now, put that guy inside the box for the time being. We'll come back to him soon!

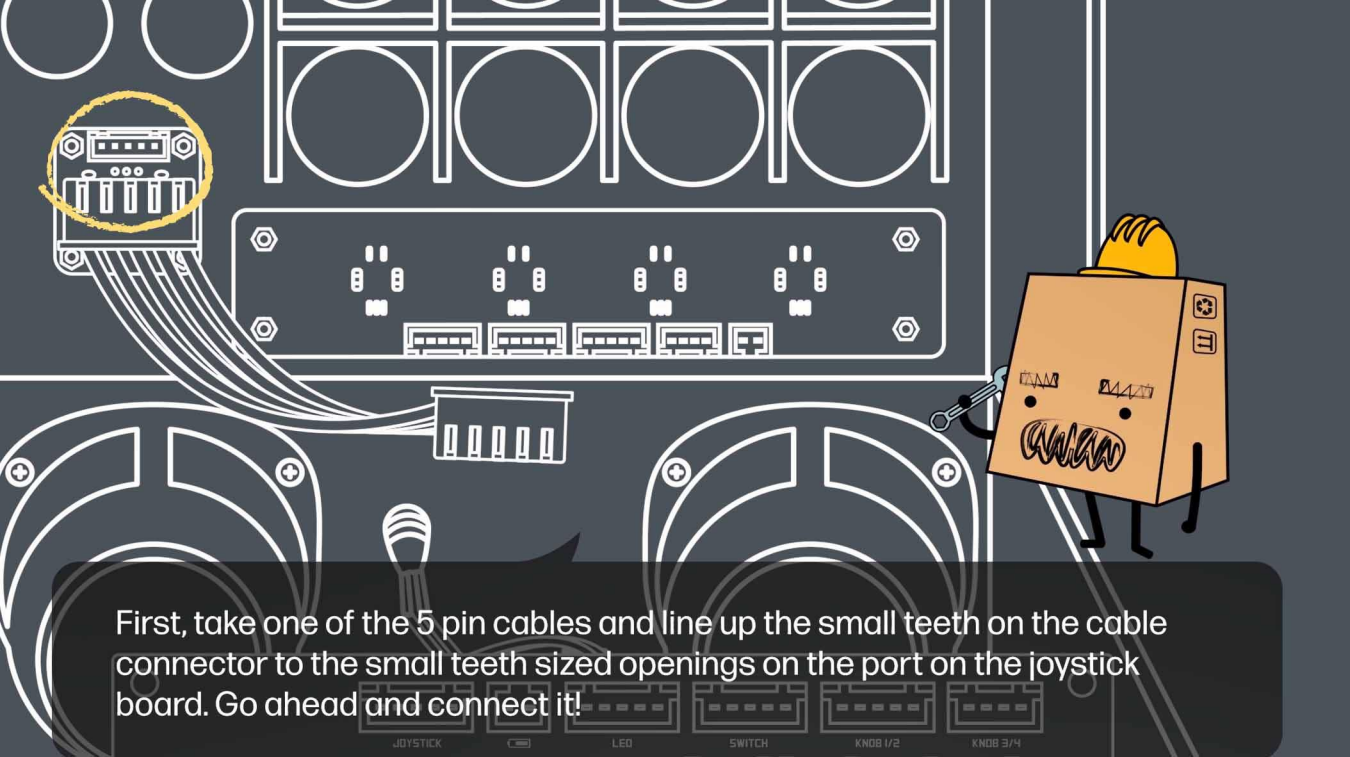

Next find the 4 and 5 pin cables. There are four 5 pin cables, all of them have five cords between each port.



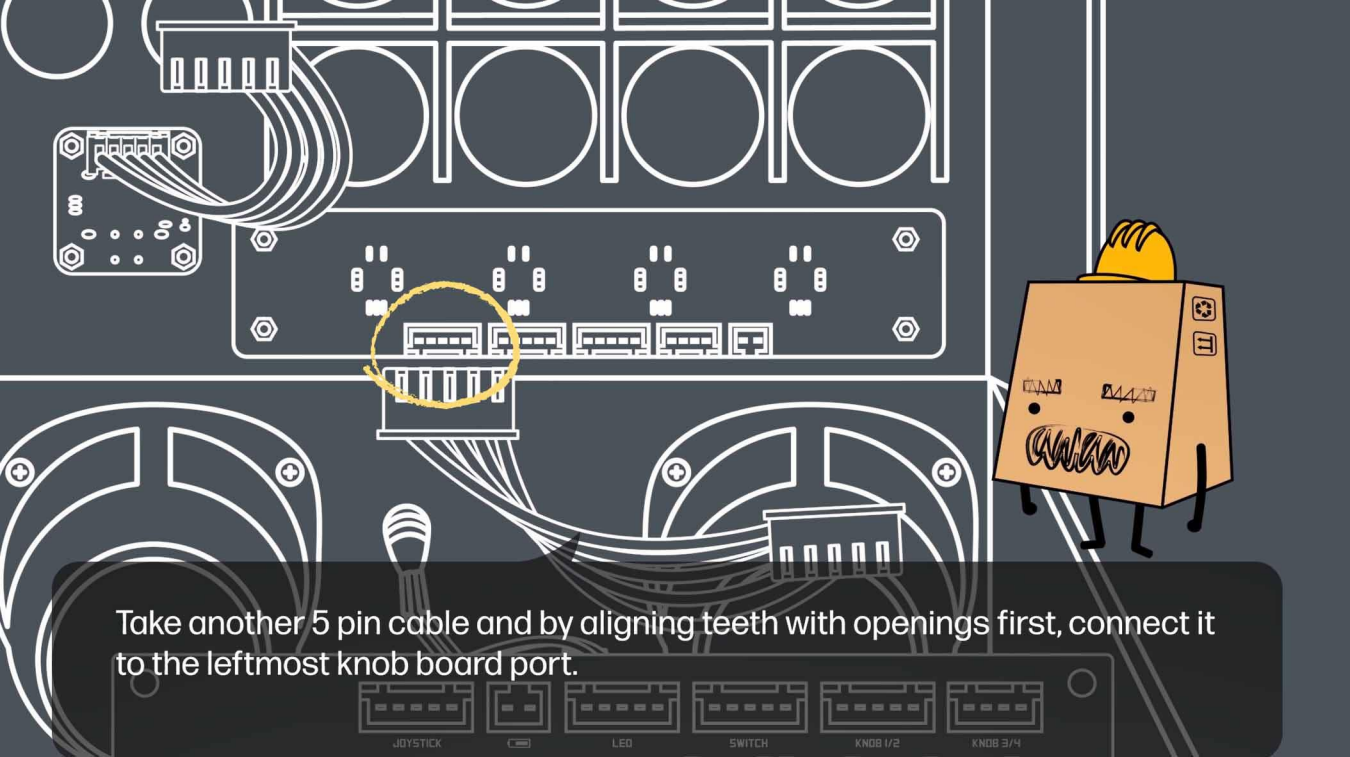
There are two 4 pin cables. They have 4 cords between the ports. You're only gonna need one for this part. You'll use the other later on.


Keep in mind that we're gonna be working from left to right across the joystick board and knob board.

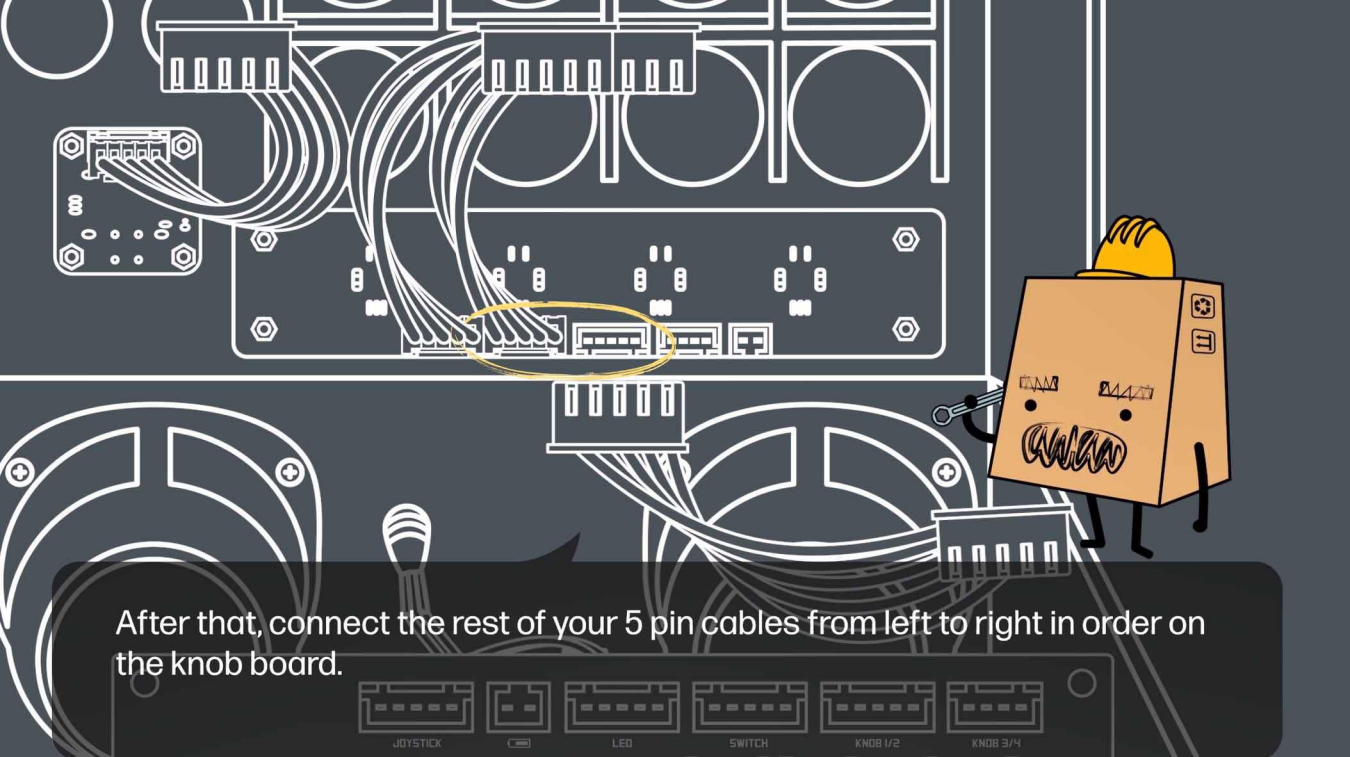
It is best to keep one hand on the joystick as a counterforce for this next part!



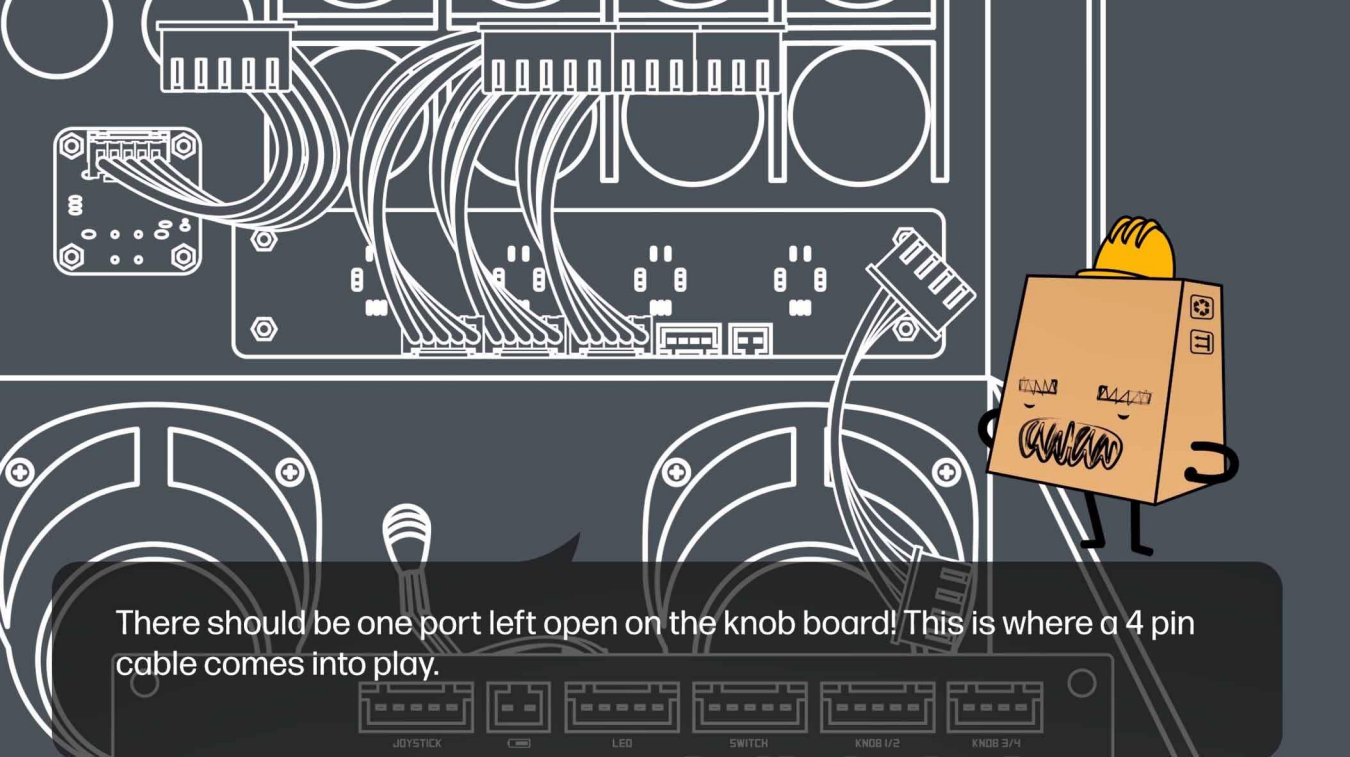
First, take one of the 5 pin cables and line up the small teeth on the cable connector to the small teeth sized openings on the port on the joystick board. Go ahead and connect it!

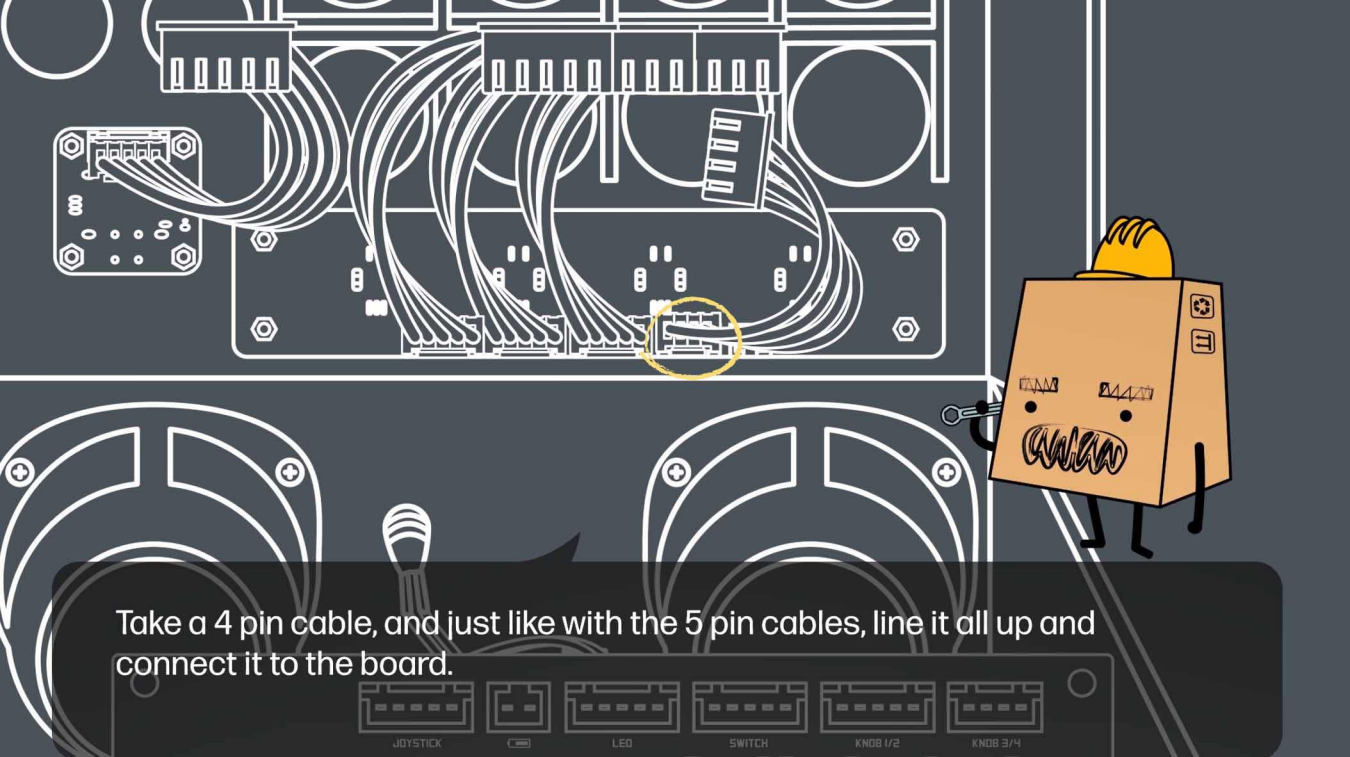


Take another 5 pin cable and by aligning teeth with openings first, connect it to the leftmost knob board port.

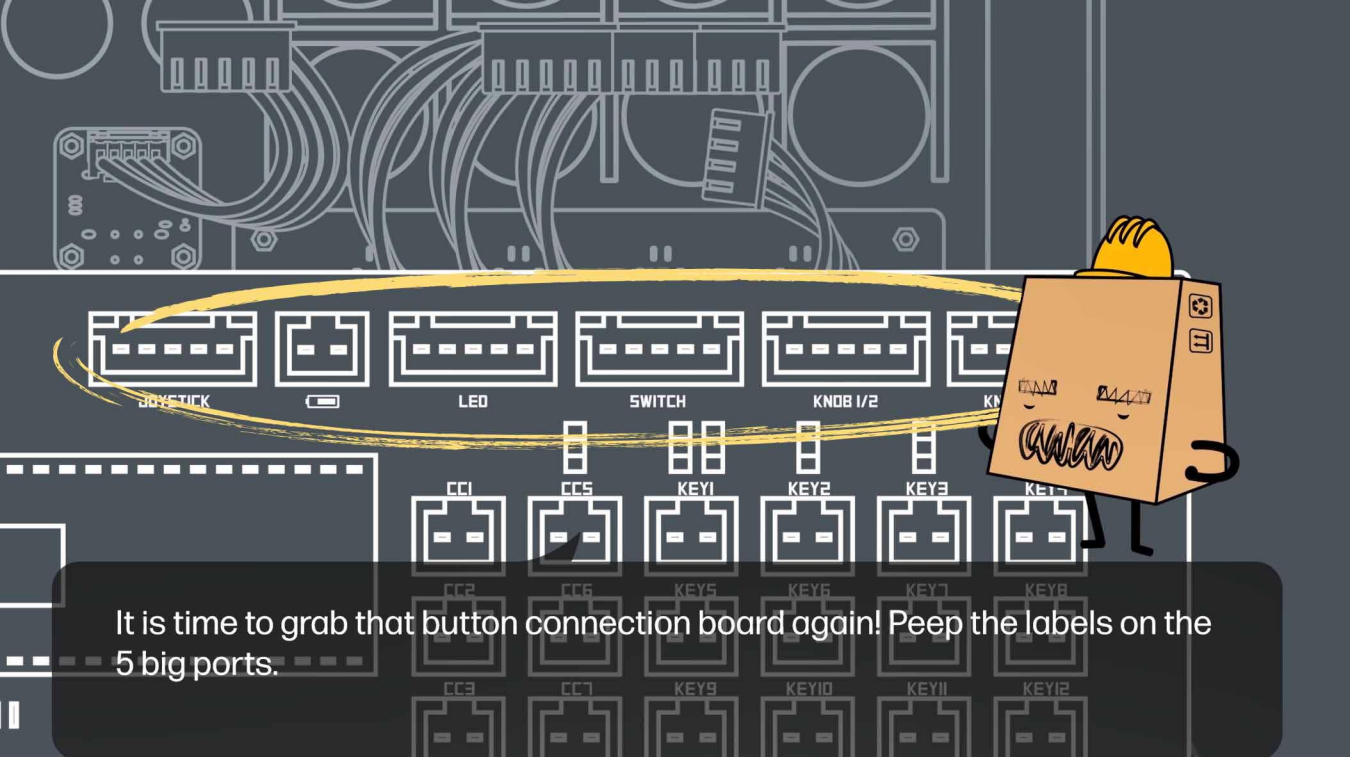


After that, connect the rest of your 5 pin cables from left to right in order on the knob board.

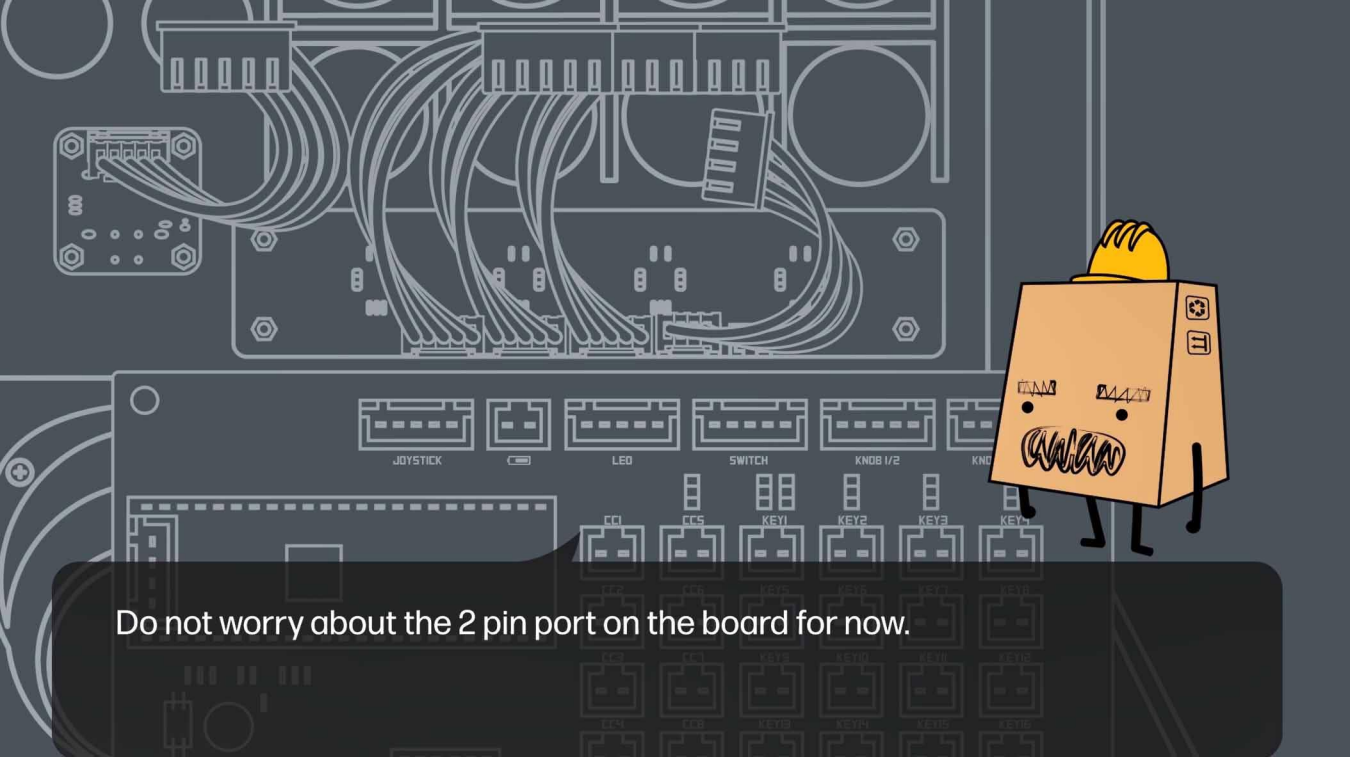

There should be one port left open on the knob board! This is where a 4 pin cable comes into play.
JOYSTICK
LED
SWITCH
KNOB 1/2
KNOB 3/4

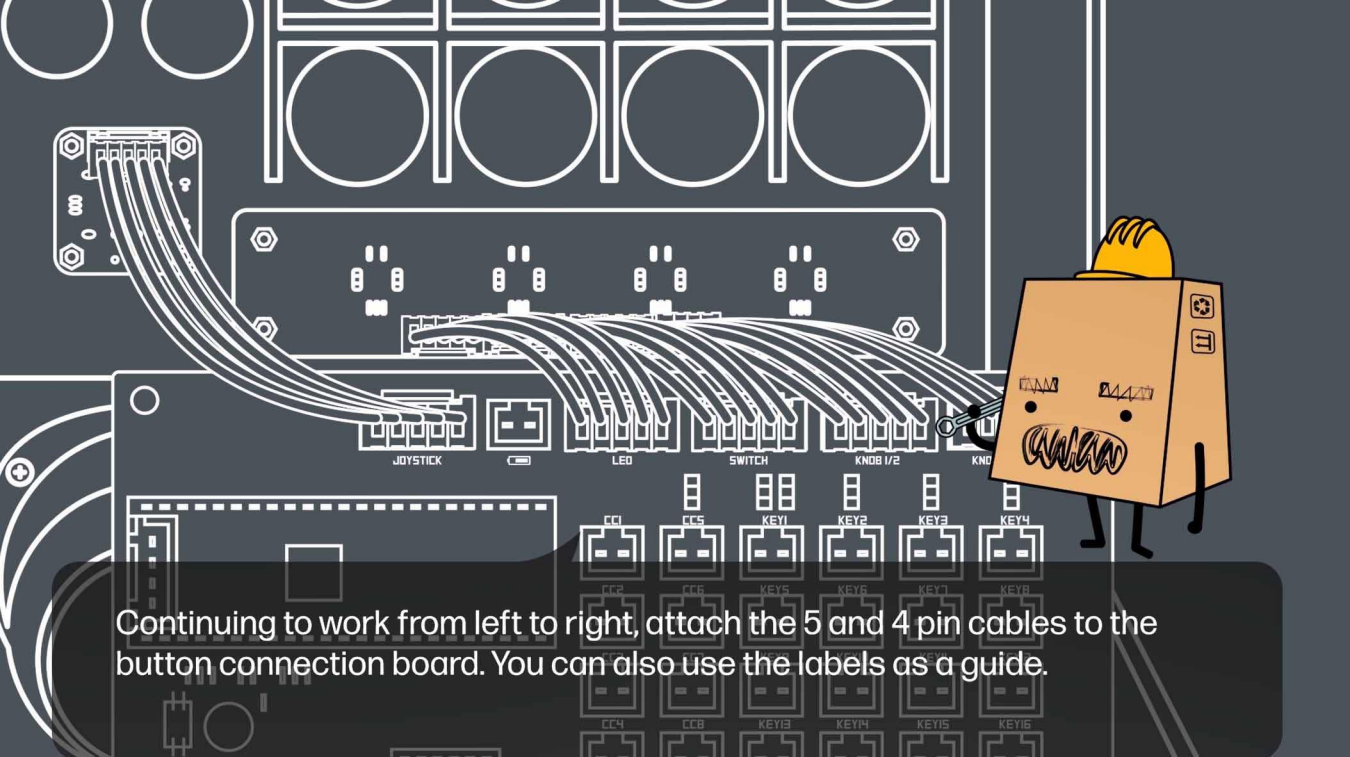


Take a 4 pin cable, and just like with the 5 pin cables, line it all up and connect it to the board.

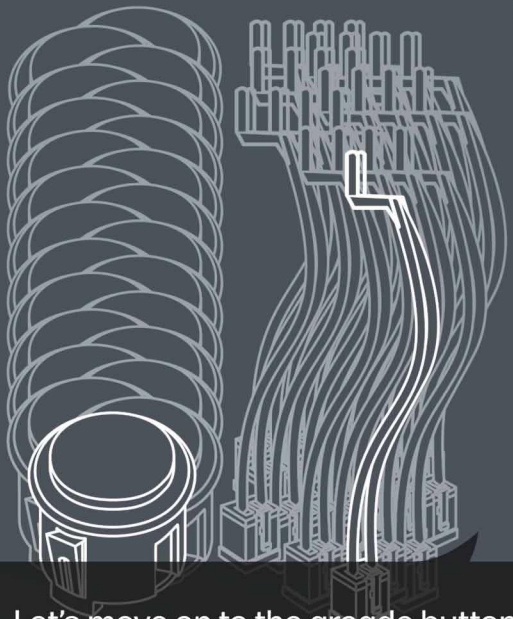


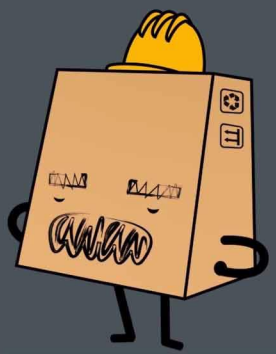
It is time to grab that button connection board again! Peep the labels on the 5 big ports.


JOYSTICK
LED
SWITCH
KNOB 1/2
CC1
CC5
KEY1
KEY2
KEY3
Do not worry about the 2 pin port on the board for now.

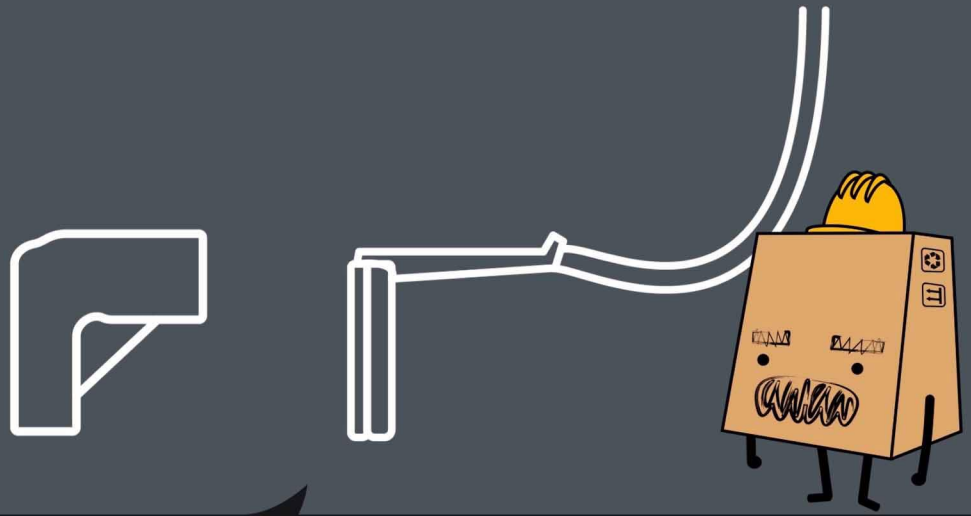


Continuing to work from left to right, attach the 5 and 4 pin cables to the button connection board. You can also use the labels as a guide.

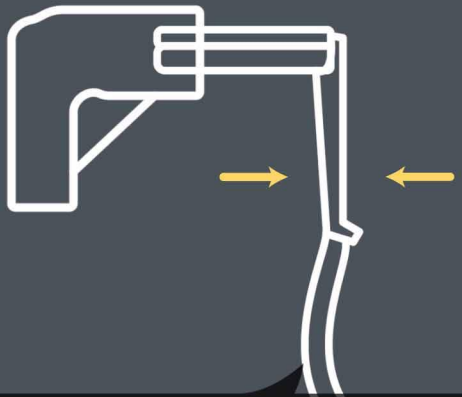


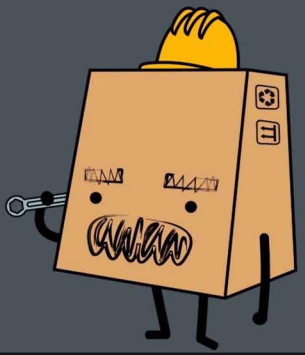


Let's move on to the arcade buttons. You're gonna need all of the buttons and cables and those little L-shaped plastic terminal covers.



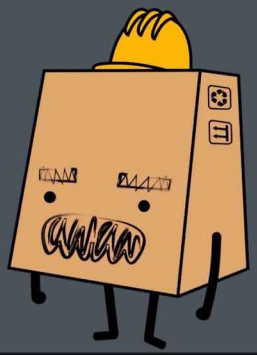
Grab a cable and a plastic cover.





By holding on to the metal, not the wire, Insert the end of the terminal slowly into the thicker opening of the plastic cover. Slow and steady really does win the race in this step.

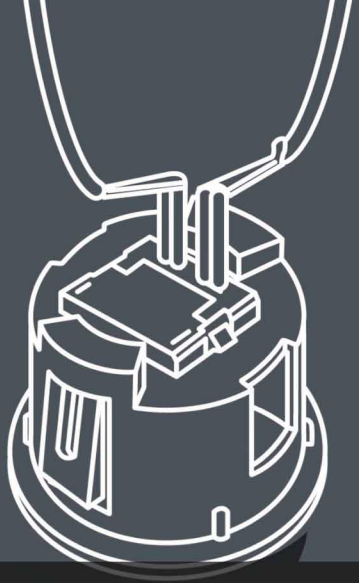
You can carefully jiggle the terminal side to side to get it further into the covering, but do not jam it in! If you use too much force you could end up bending the terminal or snapping it off.

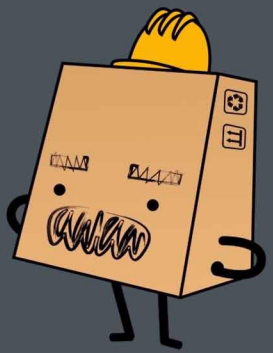


If you didn't use the plastic coverings then you have, have, HAVE to put the terminals in going in opposite directions. They have to be separated because if they touch there will be misfires.

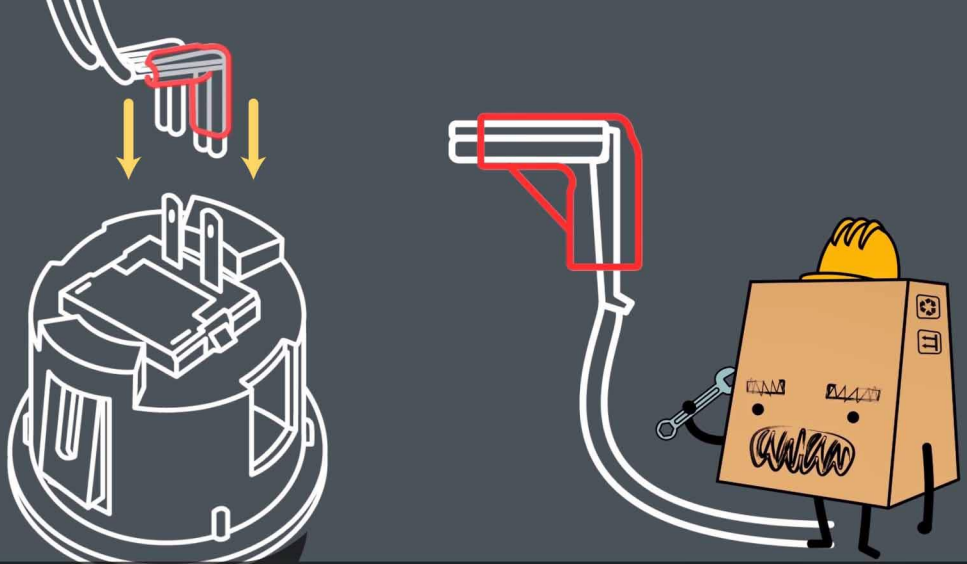
[WARNING]

Be VERY careful not to bend or break the pins while putting them in, but make sure they go in all the way. Do not try to shove them in place, instead if you face resistance you might have to wiggle them a little bit.

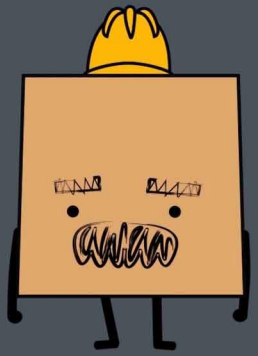




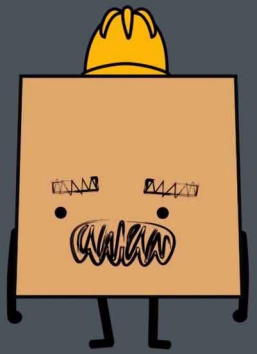
So you're gonna take a cable and attach both terminals to one of the button's pins in whichever direction is necessary depending on if you used the coverings or not.



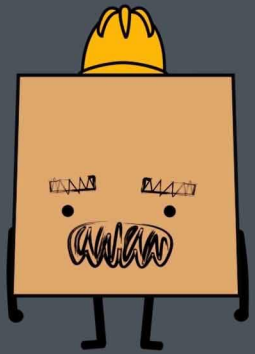
If you have used the plastic coverings you may put the terminals in going the same direction.



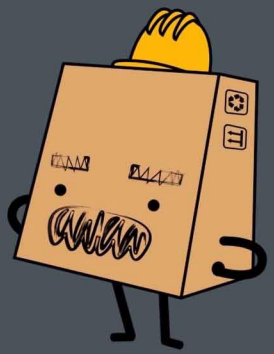
We're gonna pause for a moment of meditation. Close your eyes and take a deeeeep breath.



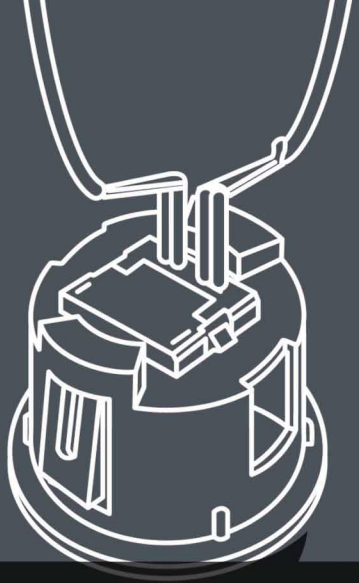
What I'm about to tell you may be shocking to some, but don't let it get to your head because I've been preparing you for this moment all along.

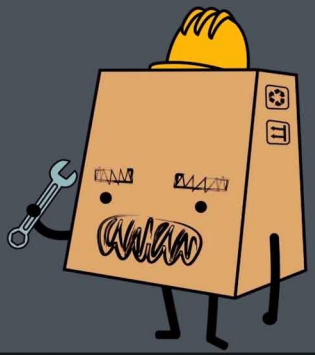


You're going to do that exact same cable to button pin step...24...more... times.

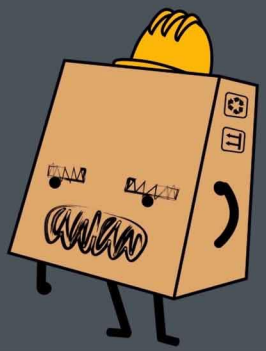


So here's what you're gonna do! Blast your favorite pump up jam and let the music be your motivation. You're gonna rise from the ashes like the phoenix I know you are!

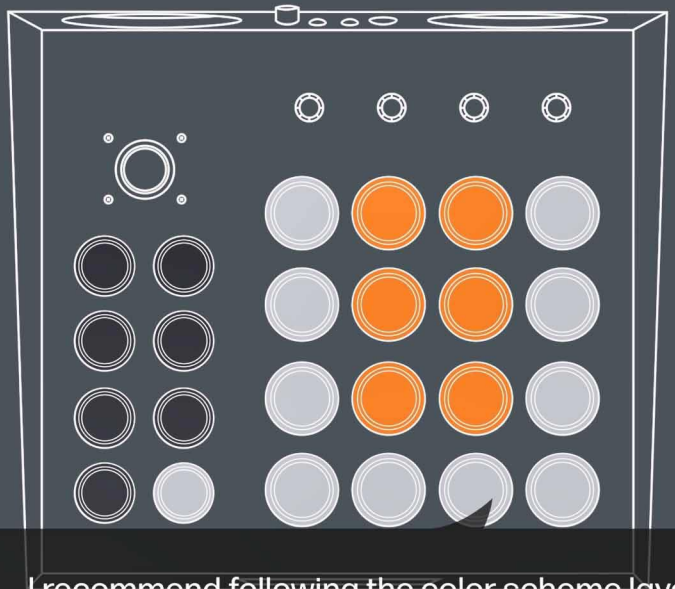


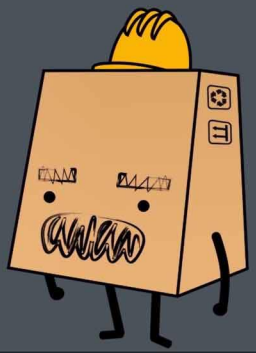


Check back in when you're done and we can move on to the next step.
Remember: take a cable and attach both terminals to the button pins.

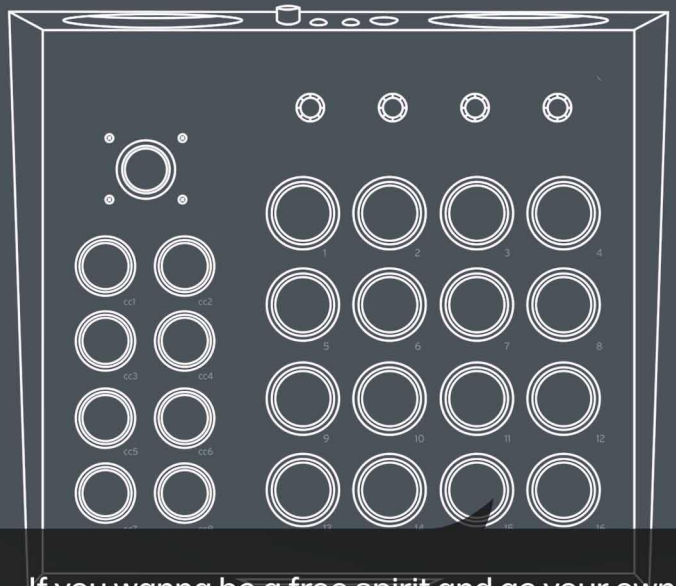


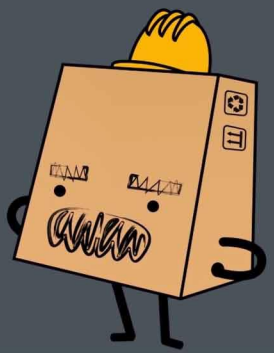
Ca-caw! That’s the sound a phoenix makes, right?



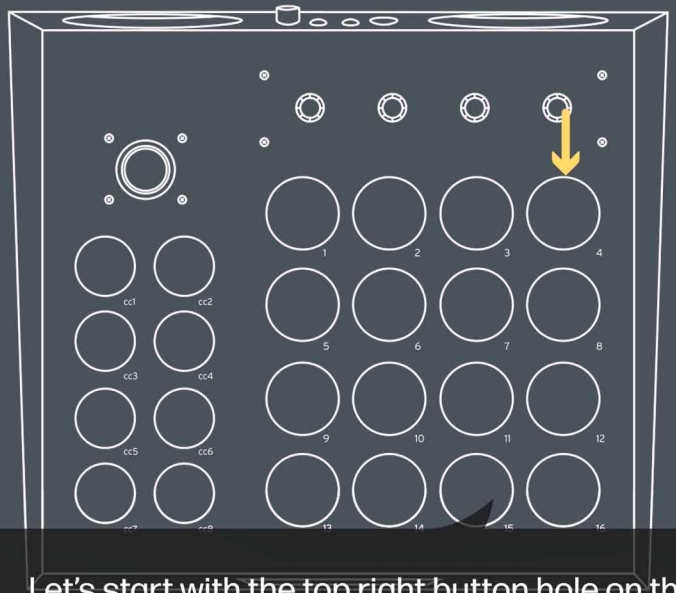


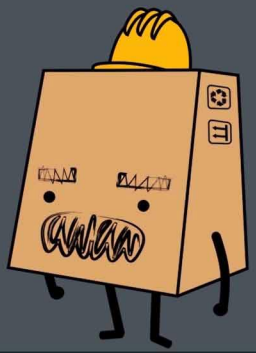
I recommend following the color scheme layout for the buttons on your box. It'll make things much easier when it is time for you to learn what each button can do.





If you wanna be a free spirit and go your own way, that's fine too. Afterall, it's your box.

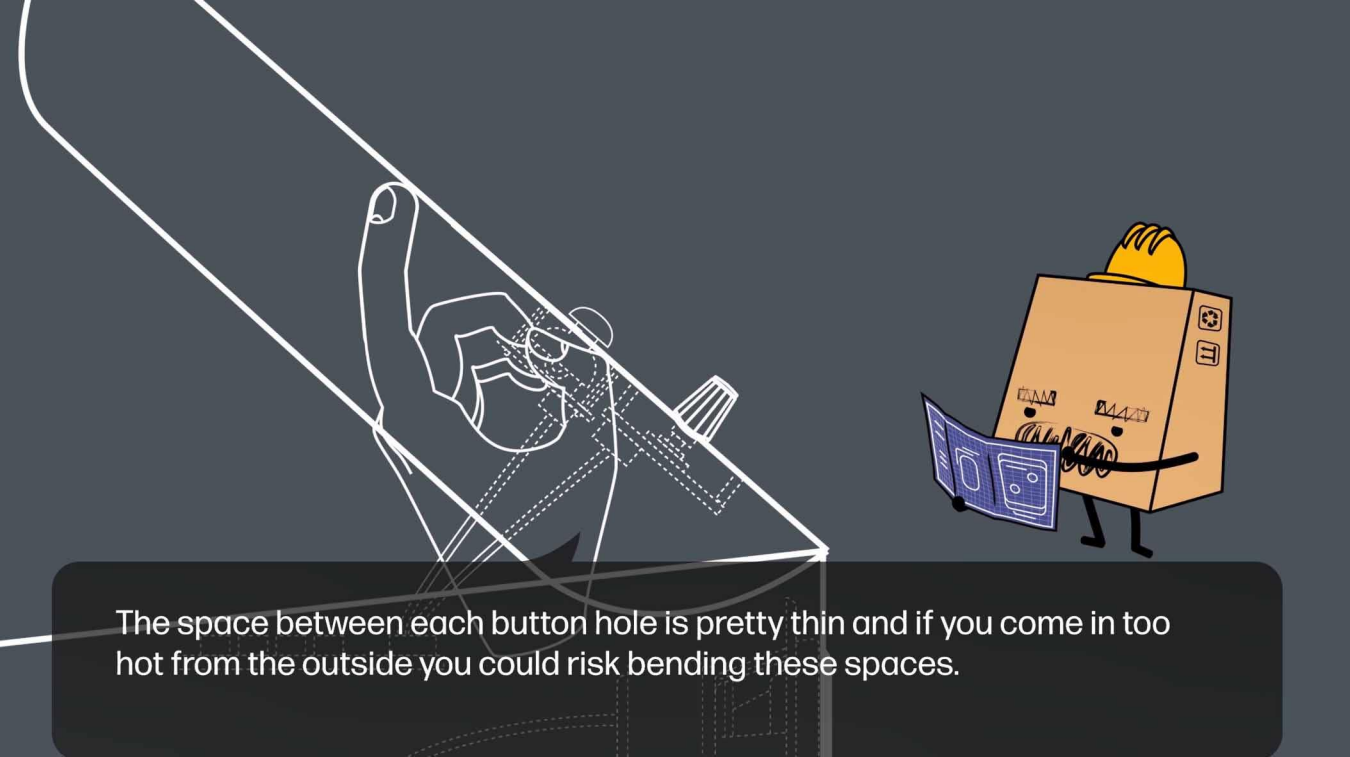




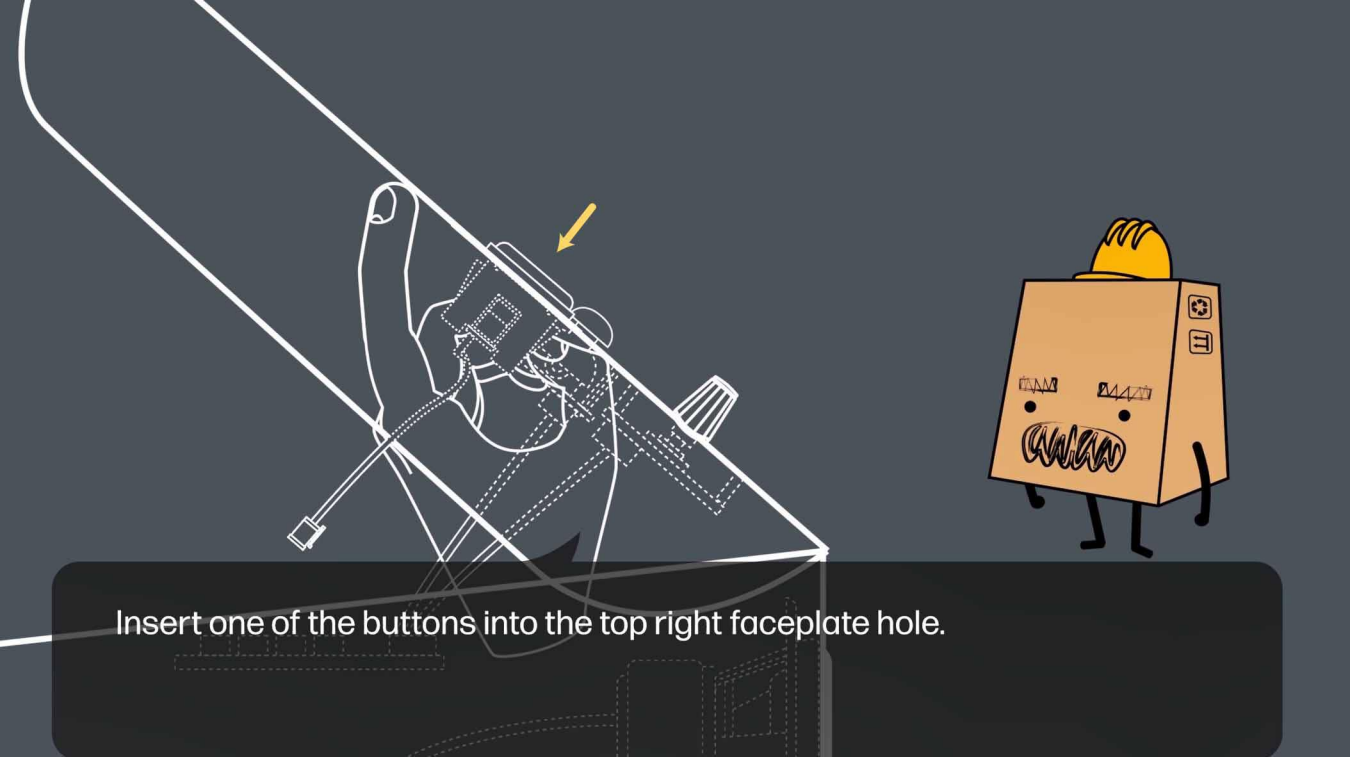
Let’s start with the top right button hole on the box. We’ll work in rows to keep things organized and make both of our lives easier.

[WARNING]

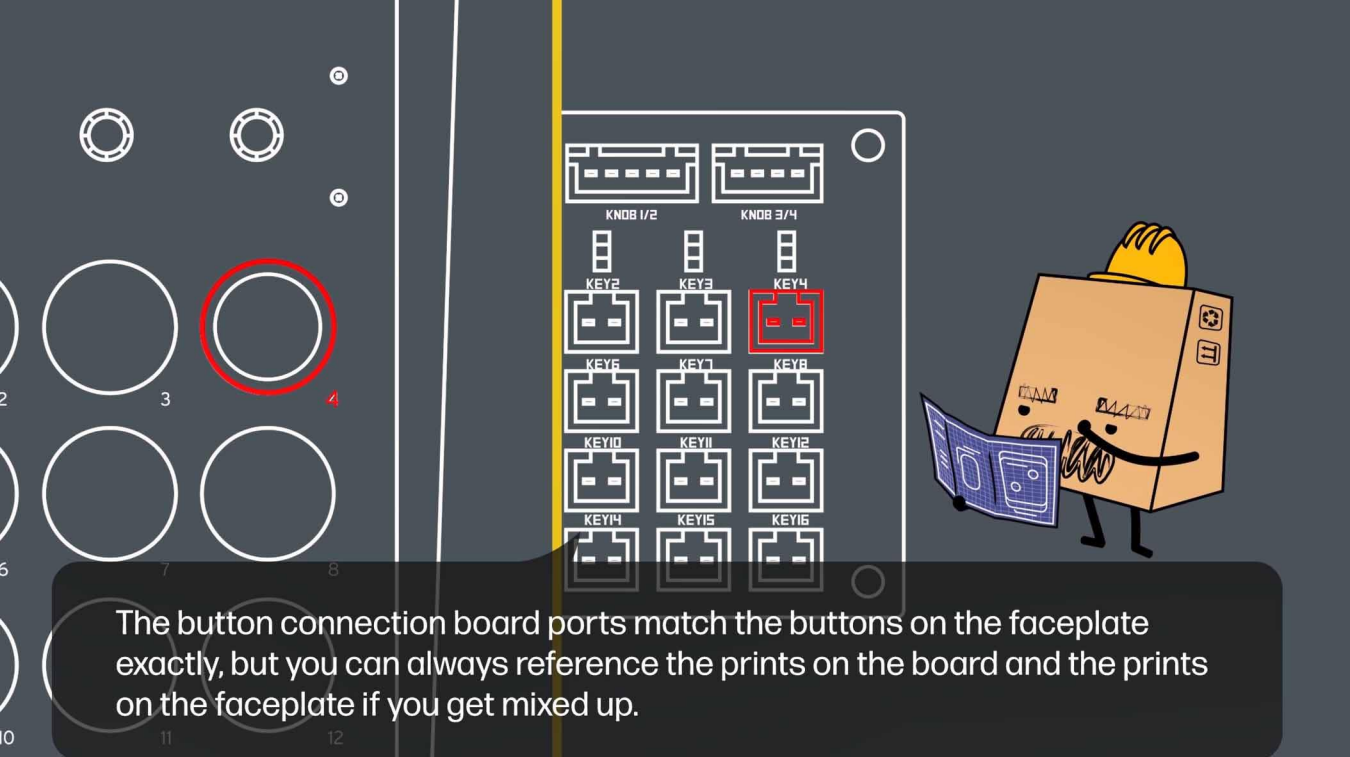
Use a hand to apply pressure to the faceplate from inside the box while inserting the buttons into the holes.



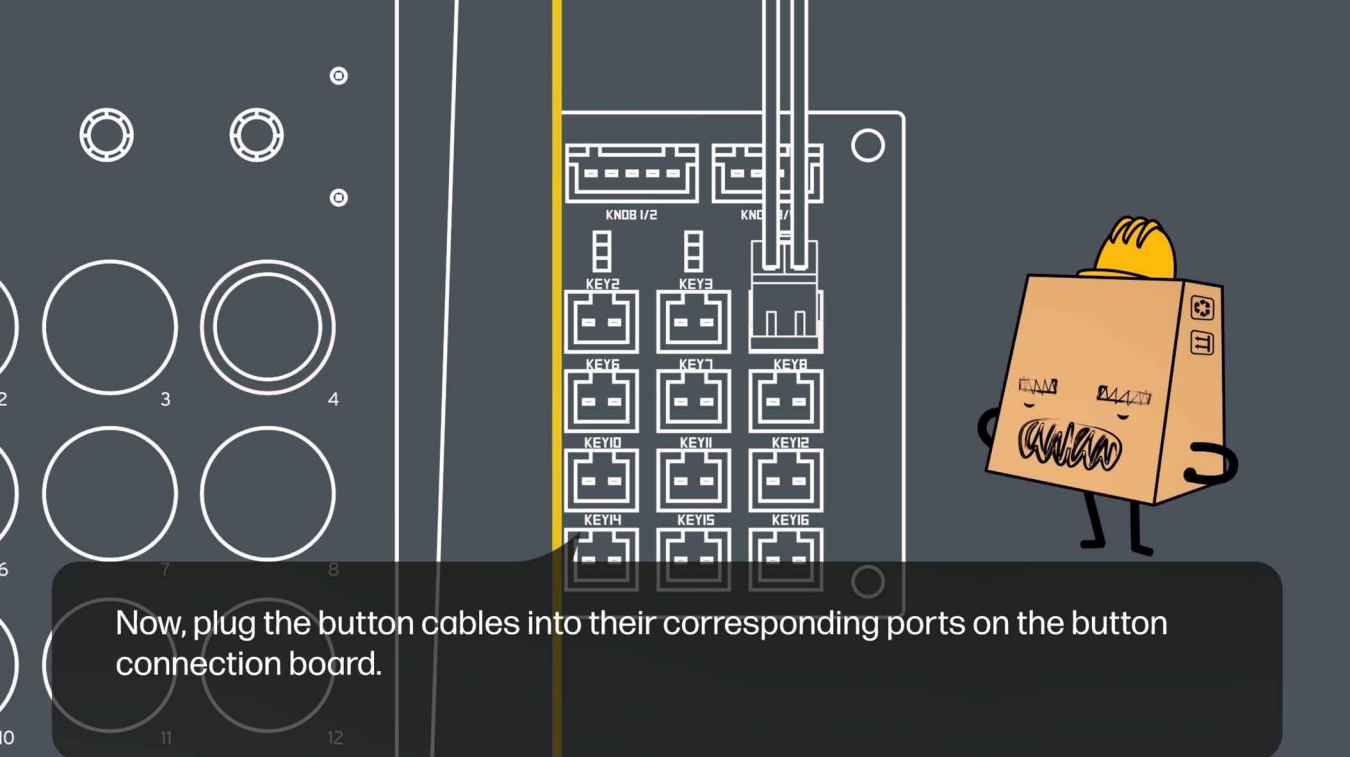
The space between each button hole is pretty thin and if you come in too hot from the outside you could risk bending these spaces.



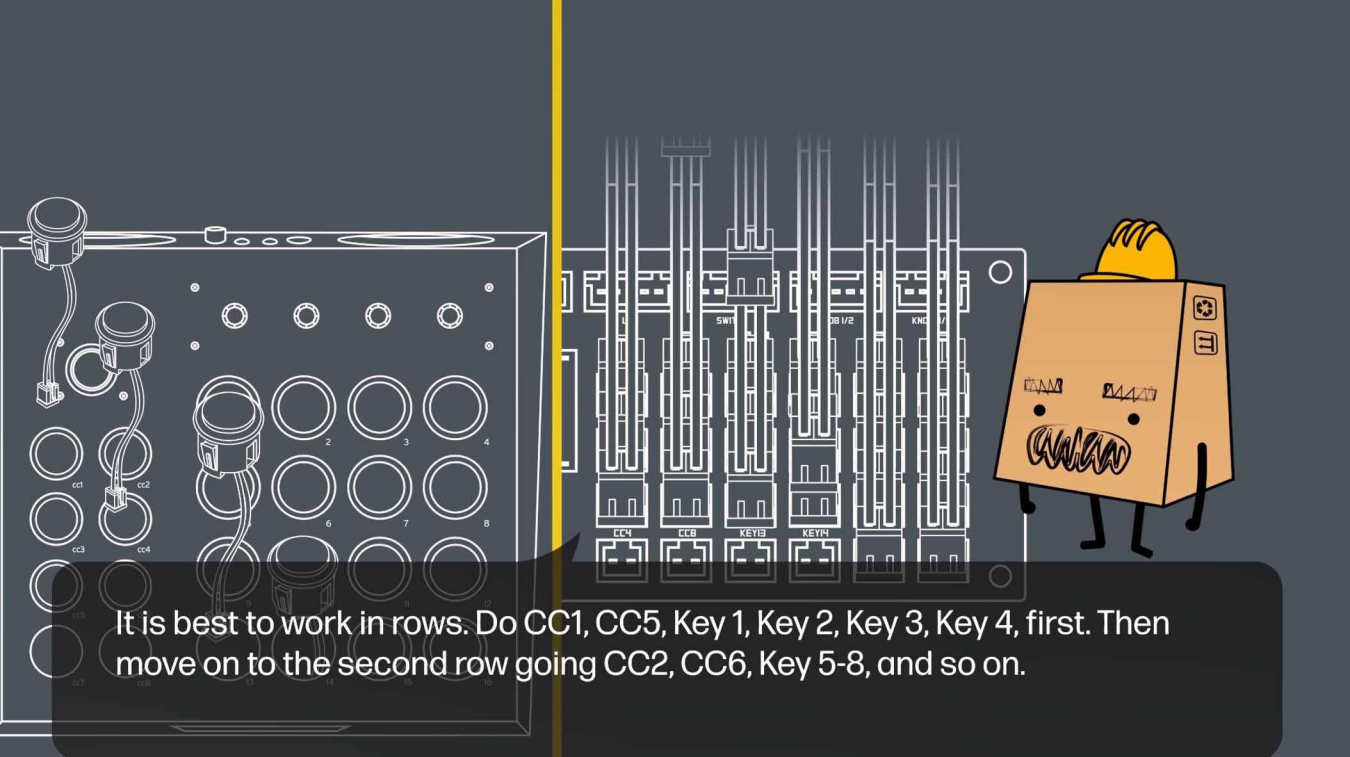
Insert one of the buttons into the top right faceplate hole.



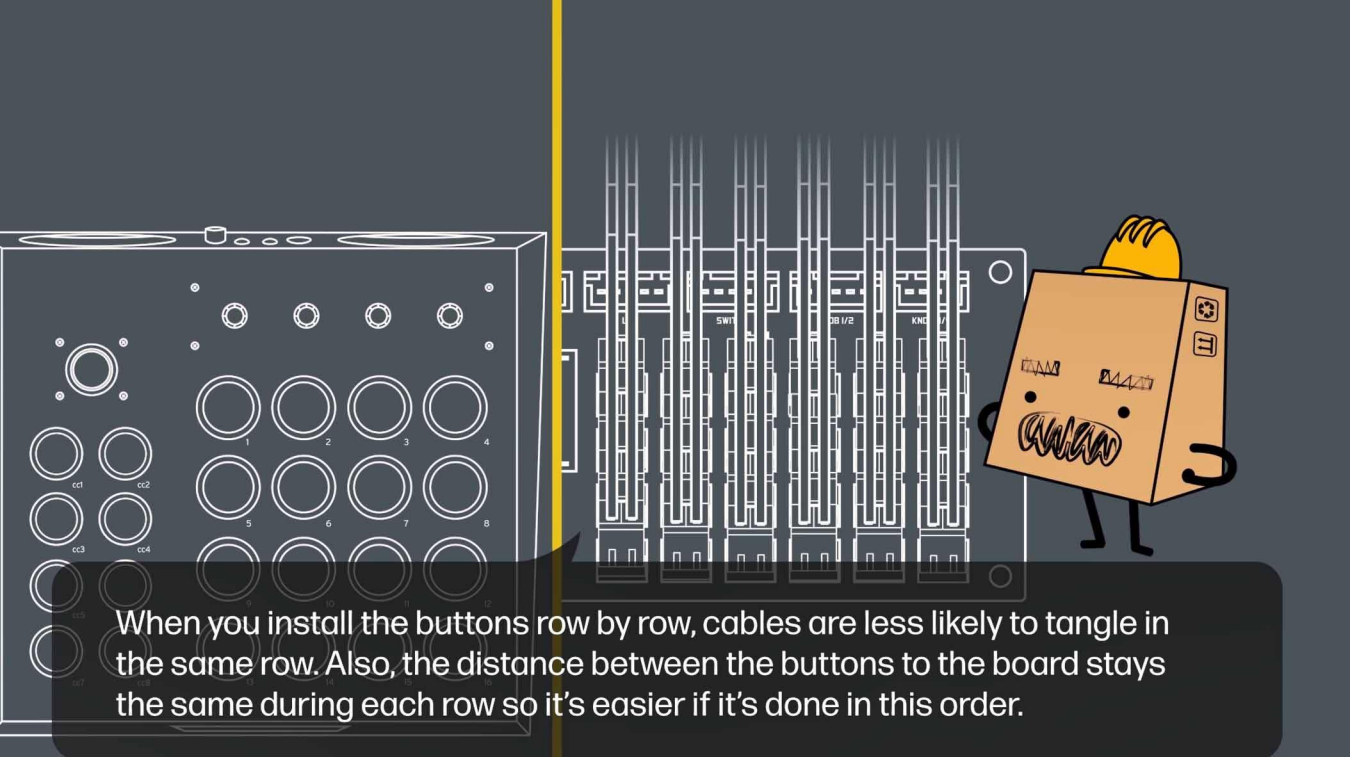
The button connection board ports match the buttons on the faceplate exactly, but you can always reference the prints on the board and the prints on the faceplate if you get mixed up.



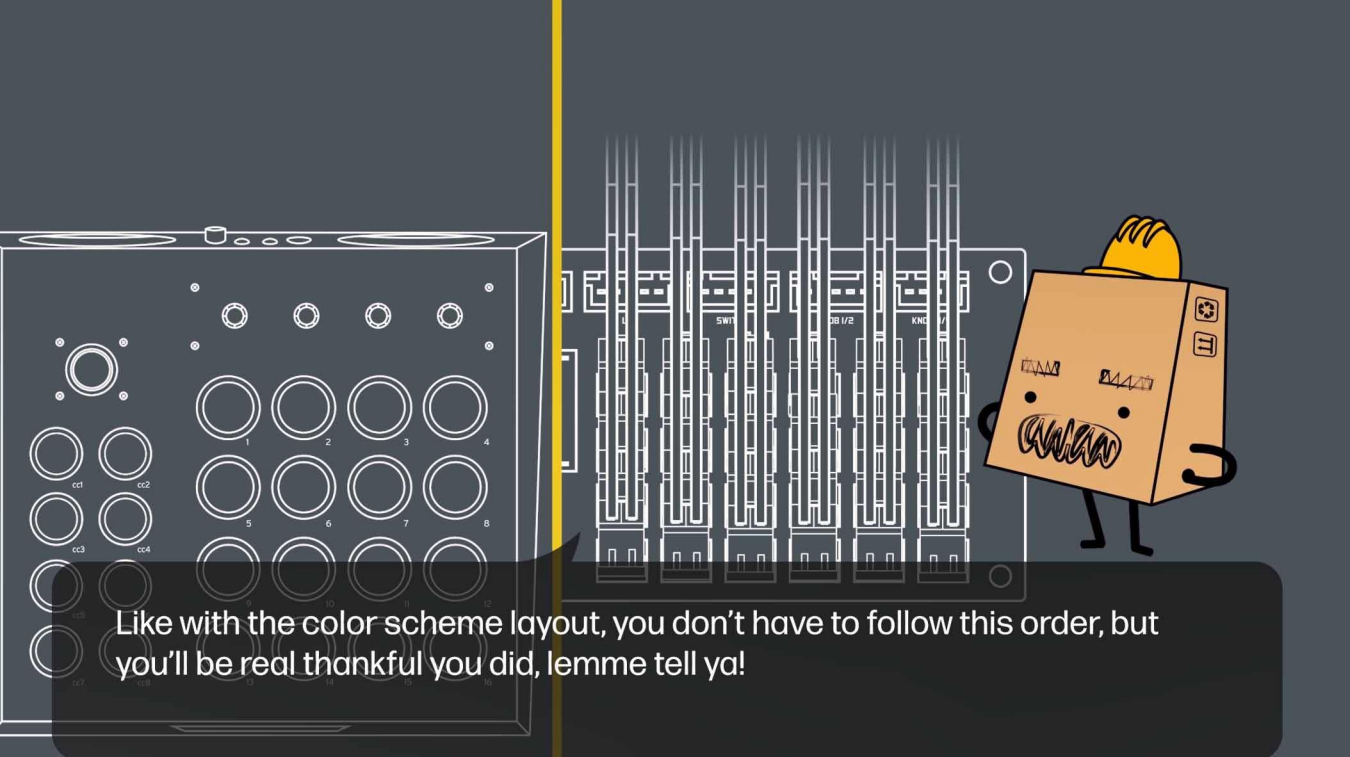
Now, plug the button cables into their corresponding ports on the button connection board.



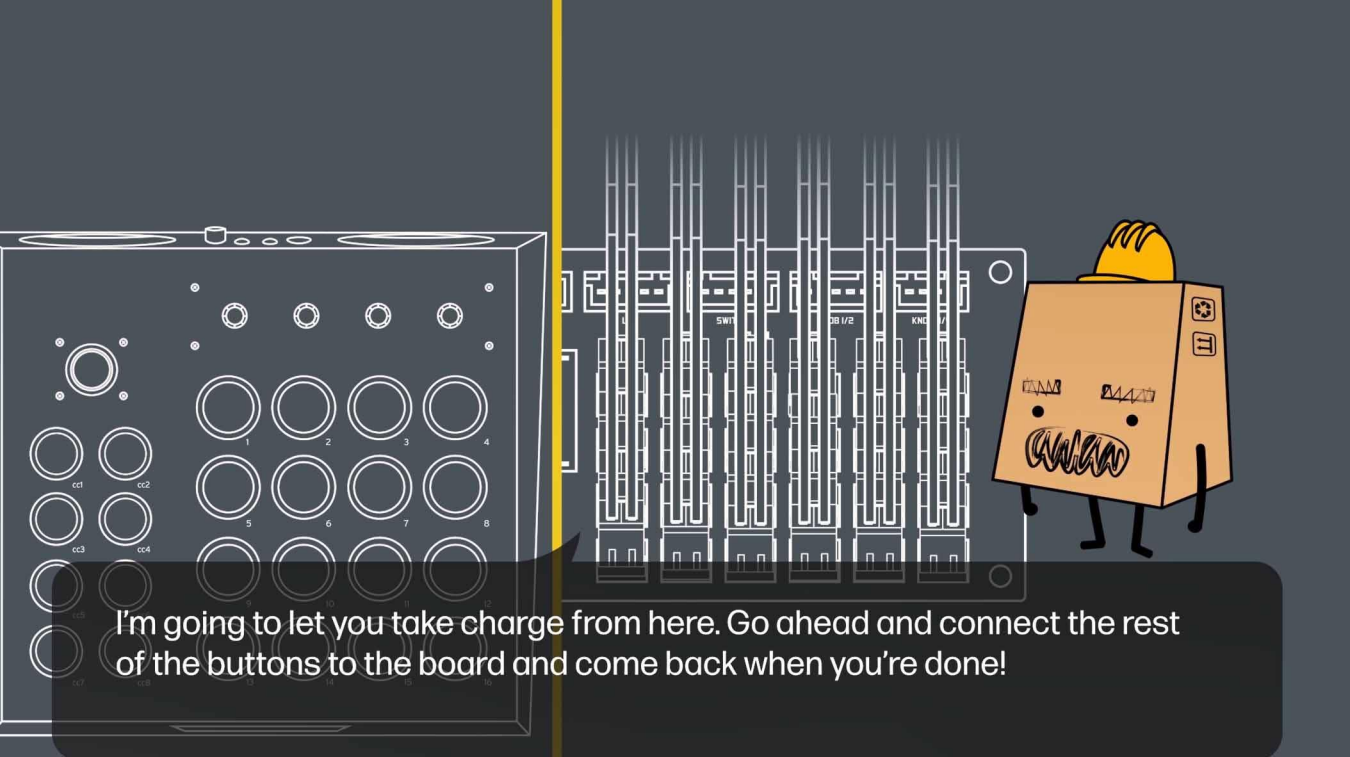
It is best to work in rows. Do CC1, CC5, Key 1, Key 2, Key 3, Key 4, first. Then move on to the second row going CC2, CC6, Key 5-8, and so on.



When you install the buttons row by row, cables are less likely to tangle in the same row. Also, the distance between the buttons to the board stays the same during each row so it's easier if it's done in this order.

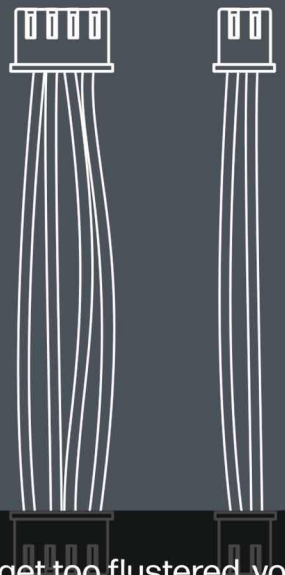


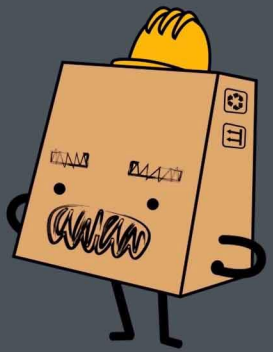
Like with the color scheme layout, you don't have to follow this order, but you'll be real thankful you did, lemme tell ya!



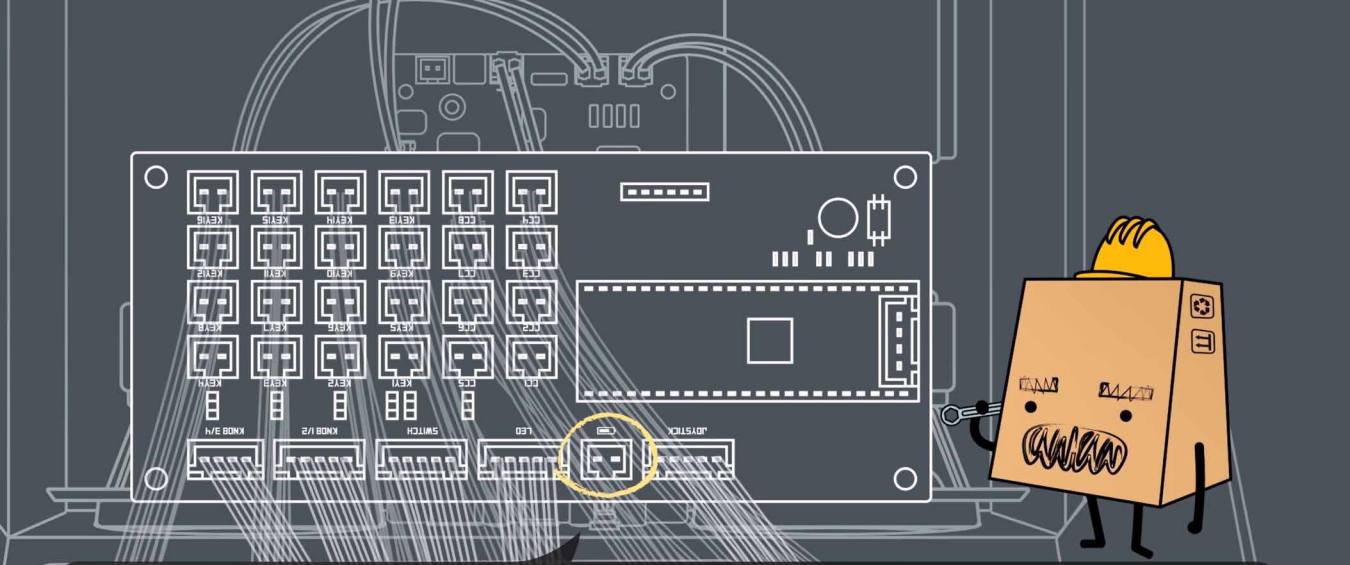
I'm going to let you take charge from here. Go ahead and connect the rest of the buttons to the board and come back when you're done!

All done? ... Look at you doing things all by yourself! You're gonna make this old geezer cry!

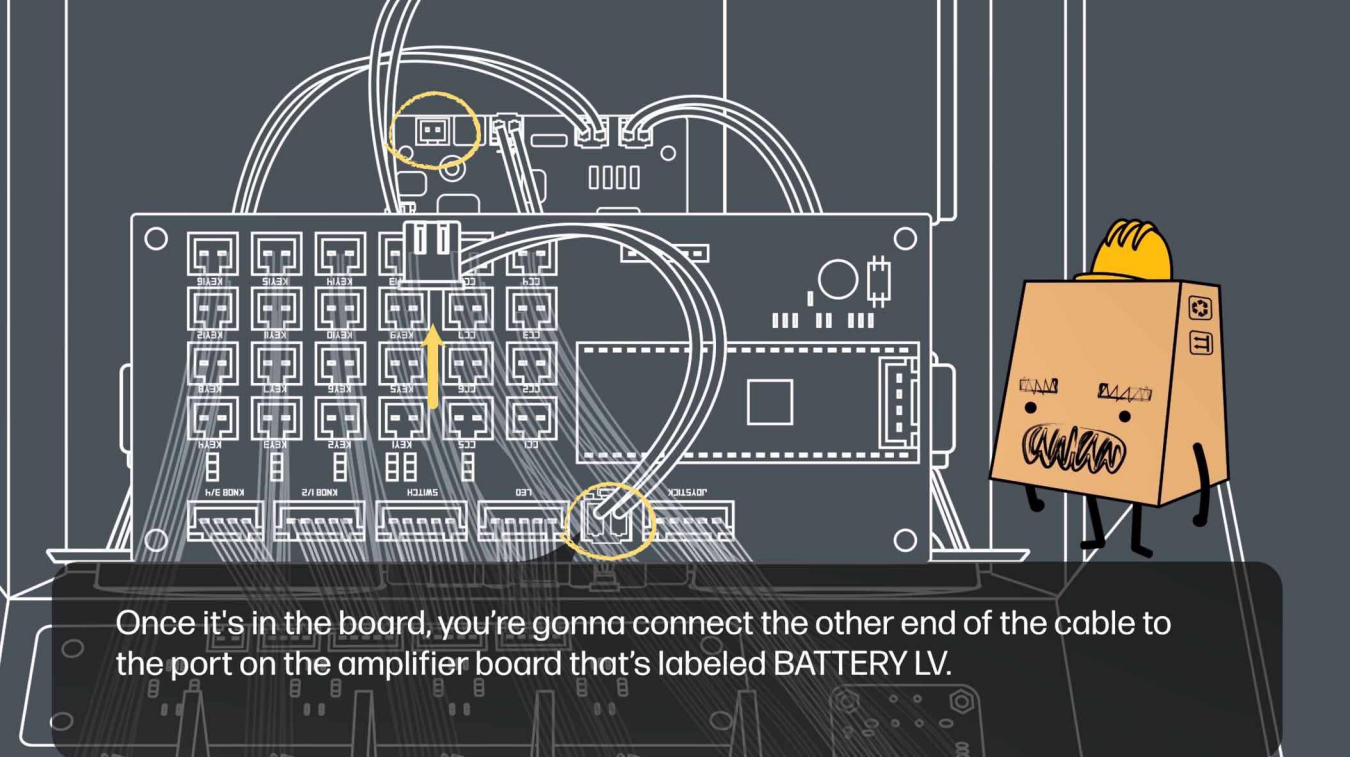




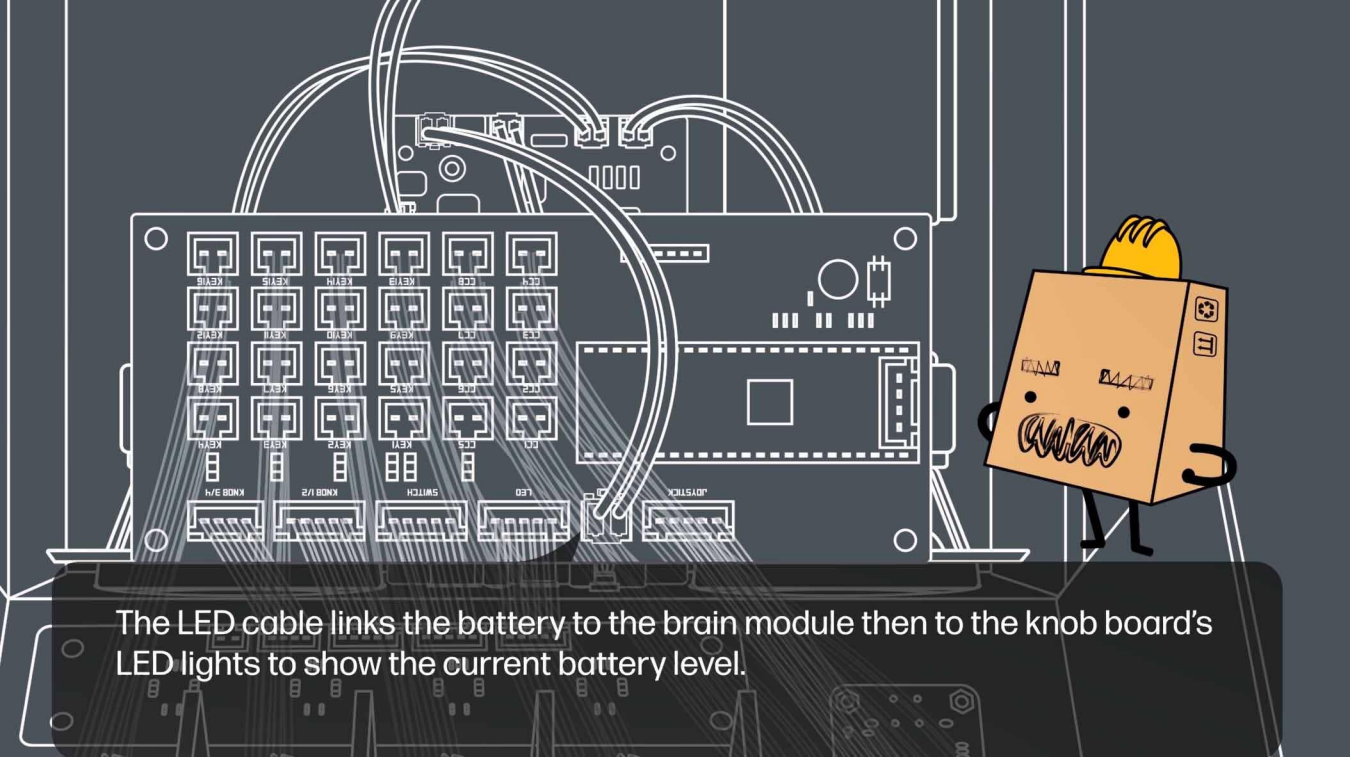
Before I get too flustered, you're gonna take the other 4 pin cable and the 2 pin cable. They should be the only cables left.



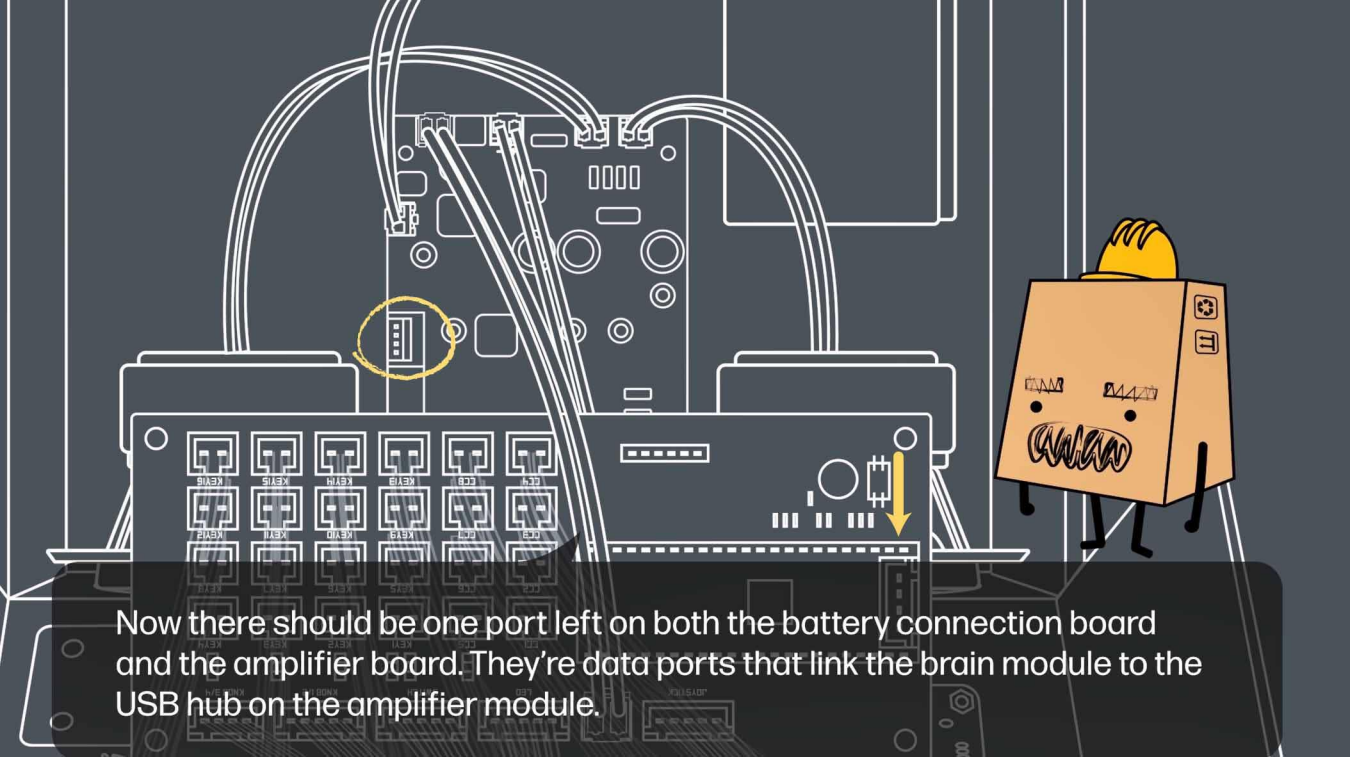
Connect the 2 pin cable to the battery port on the button connection board.
It has a lil picture of a battery under it.



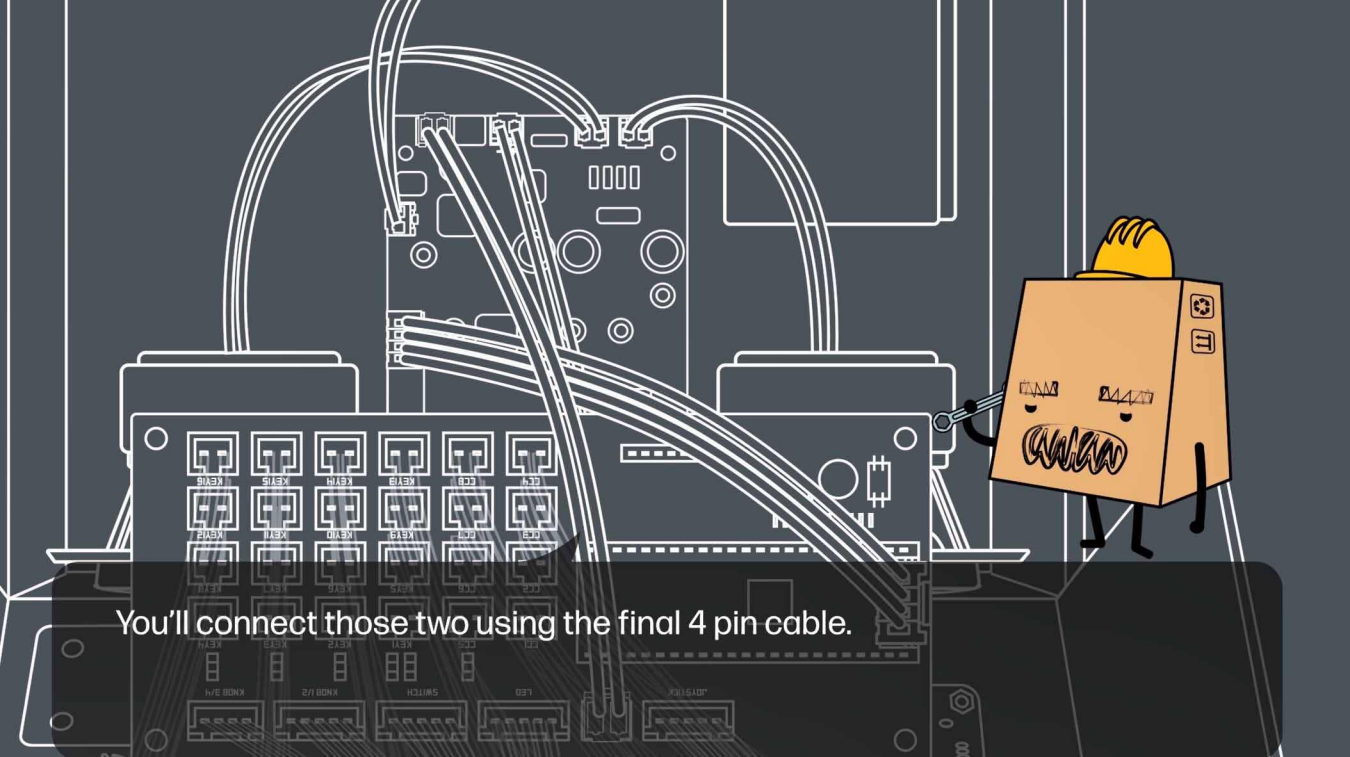
Once it's in the board, you're gonna connect the other end of the cable to the port on the amplifier board that's labeled BATTERY LV.

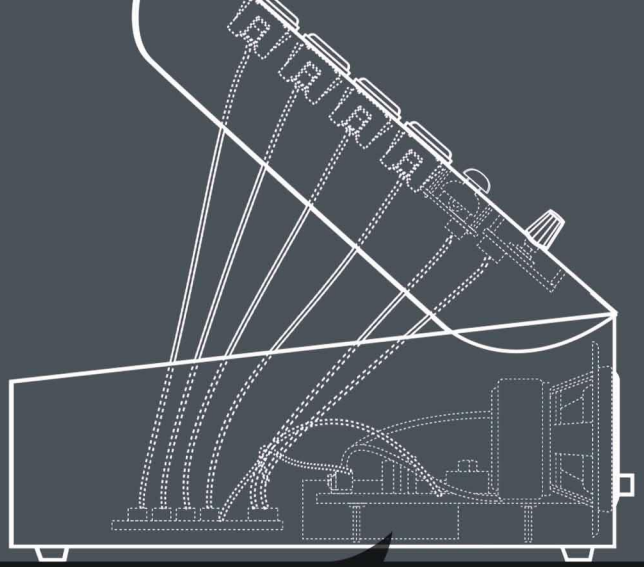


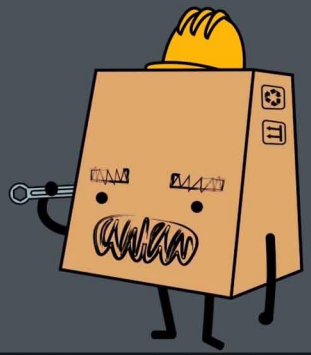
The LED cable links the battery to the brain module then to the knob board's LED lights to show the current battery level.



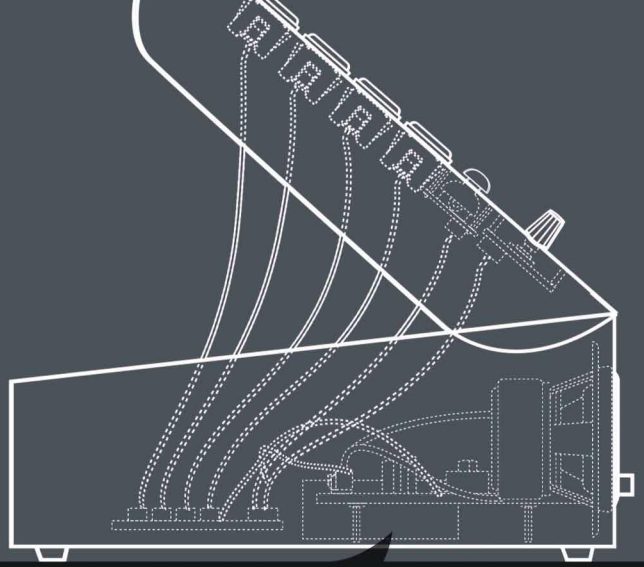
Now there should be one port left on both the battery connection board and the amplifier board. They're data ports that link the brain module to the USB hub on the amplifier module.


You'll connect those two using the final 4 pin cable.

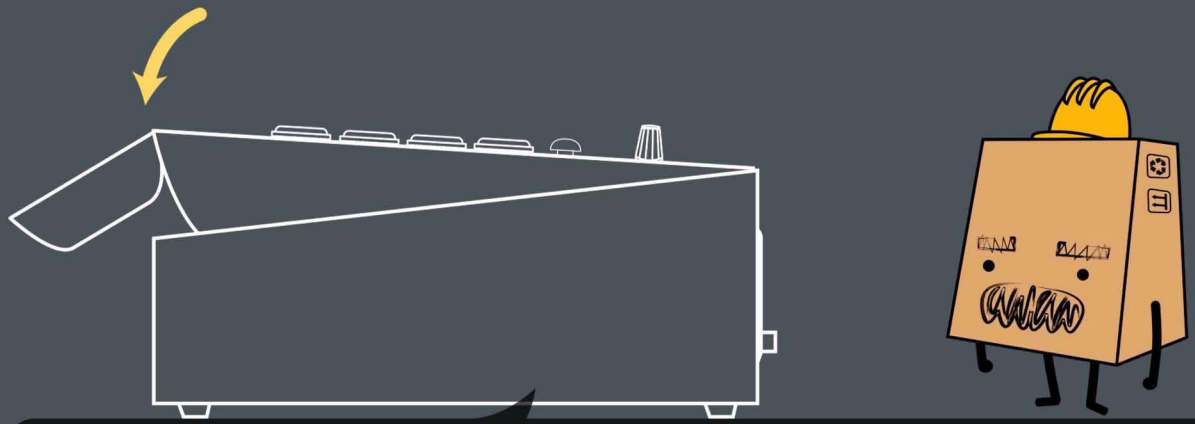




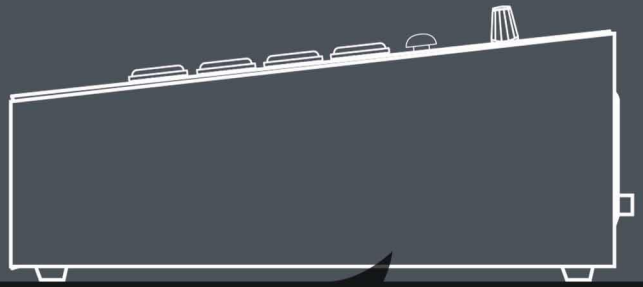
Inside of the box, place the button connection board below the amplifier board.

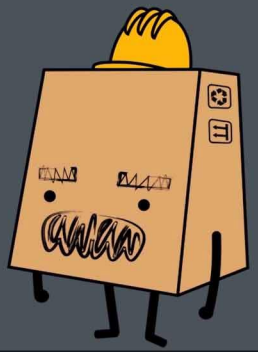


Tuck all the cables inside of the box all nice and snug.

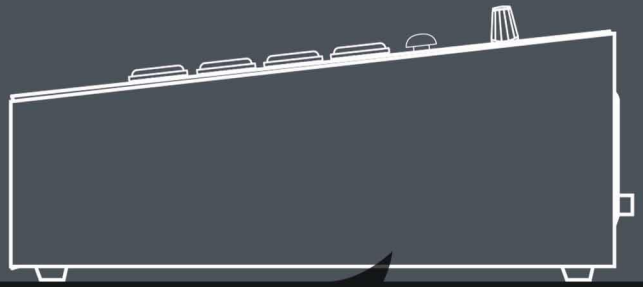


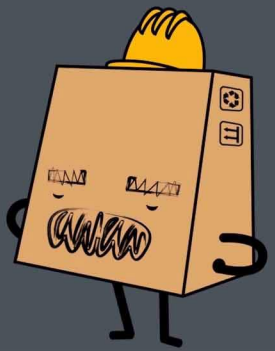
Very, very, very carefully close the box.





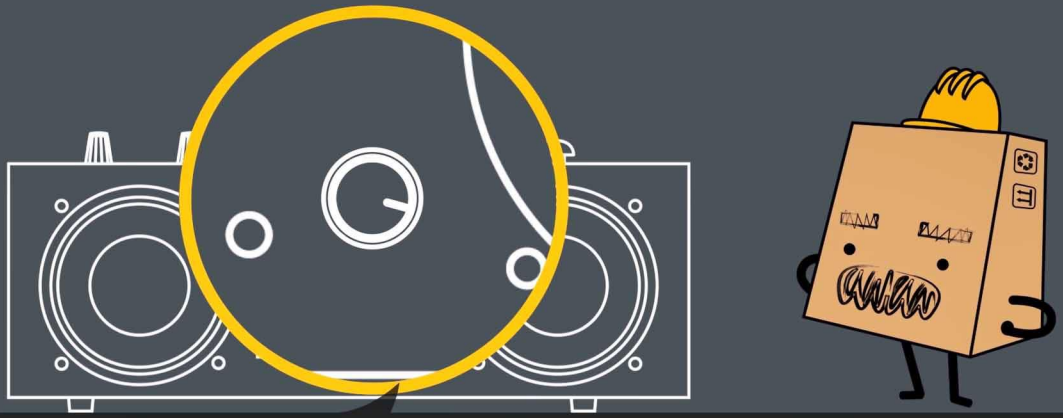
And... drumroll please!



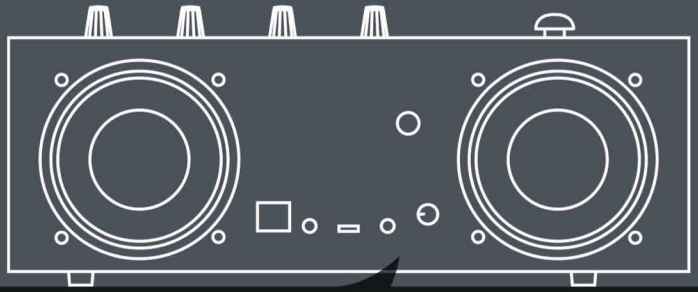


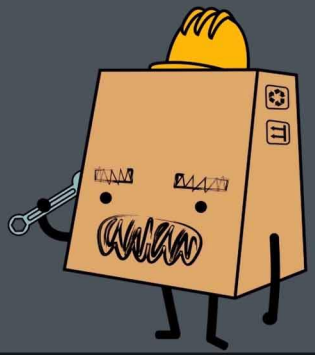
Dun dun dun dun dun dun

Just like that, you're all done!!

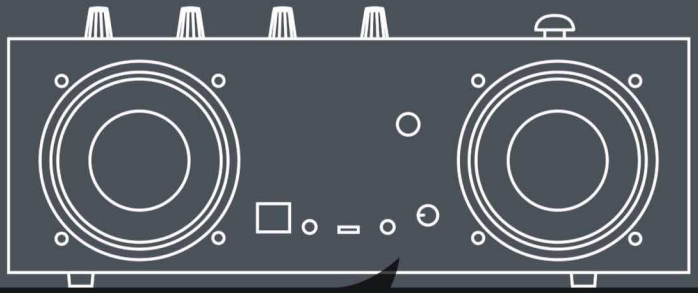


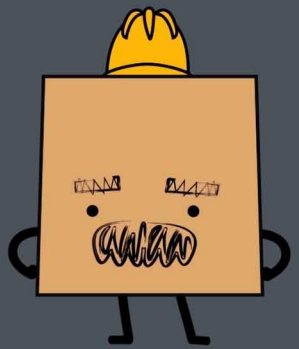
Congratulations, you are now the proud owner of a fully functional BeatBox that you assembled yourself!! Now you can turn on the BeatBox by switching the knob to the right.





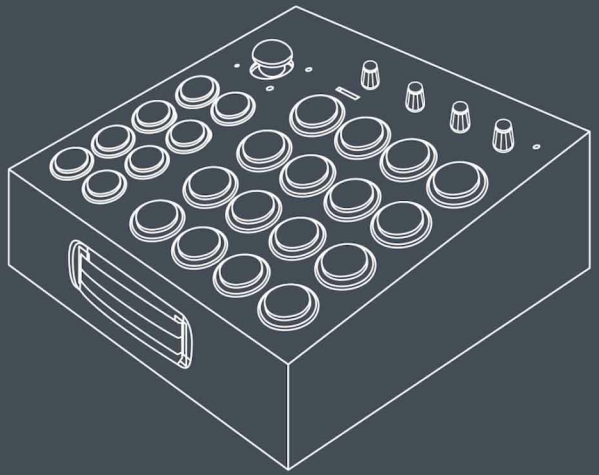
Thank you for embarking on this journey with me, it is truly one I will never forget. I hope you are proud of yourself, because I sure am proud of you.

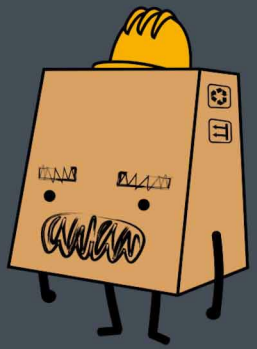




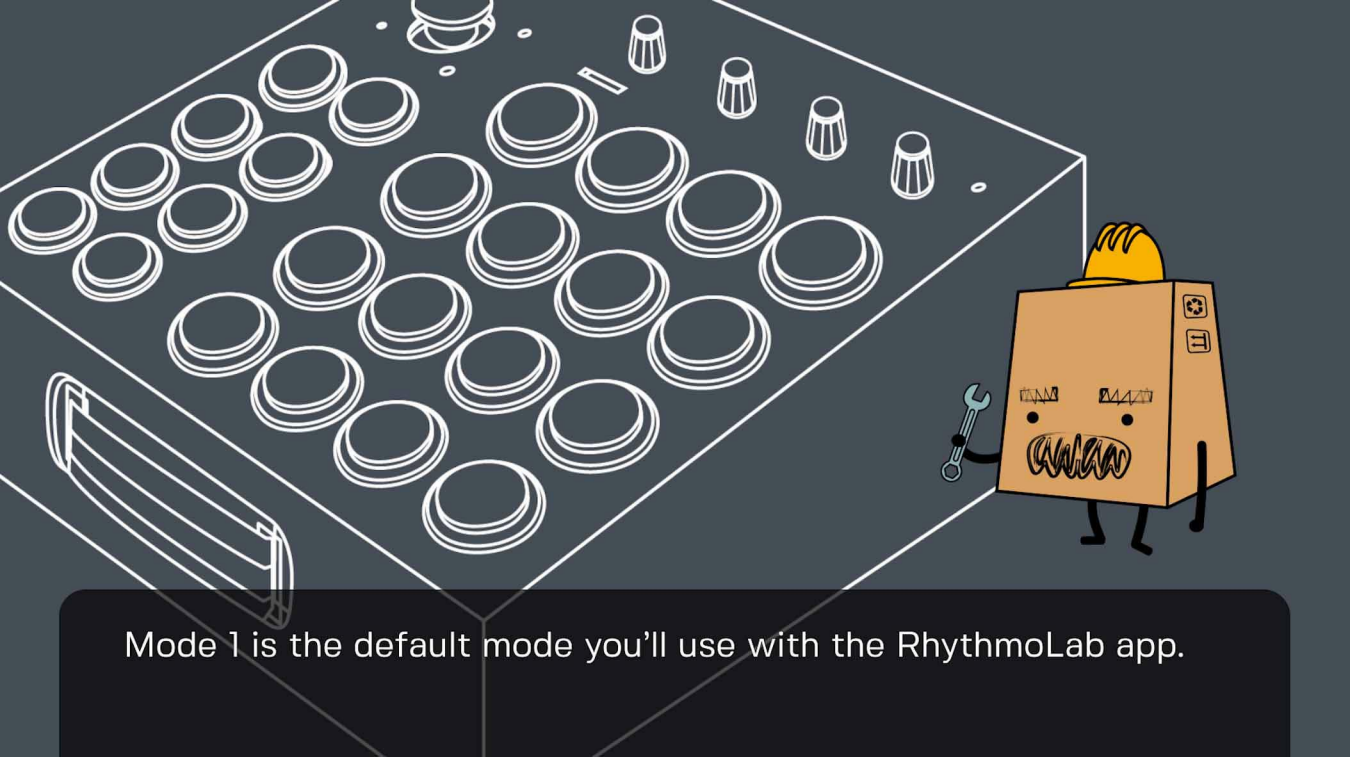
Have lots of fun making music with your BeatBox. Perhaps make a song of victory. Until next time, my friend.

09. Modes

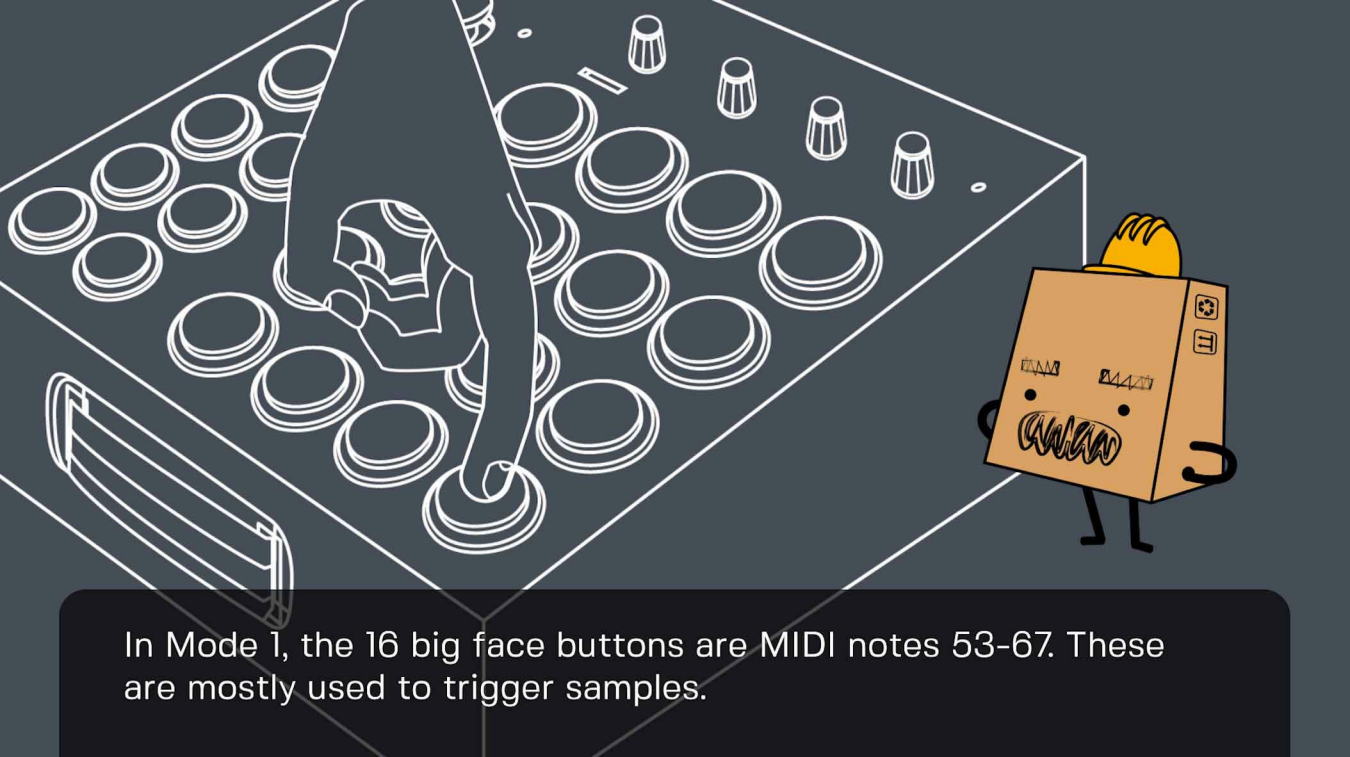




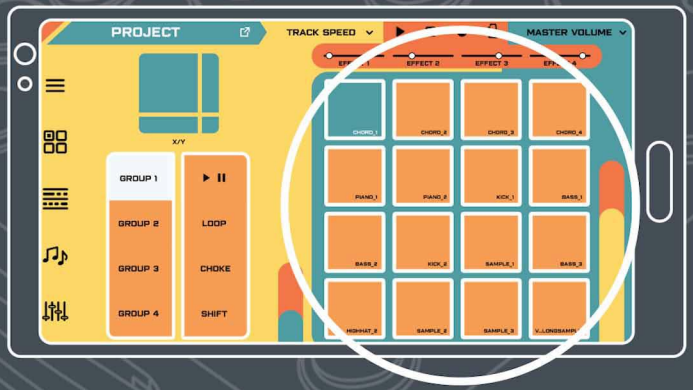
The BeatBox has two control modes. Let’s start with Mode 1!

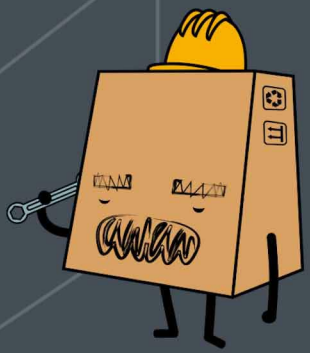


Mode 1 is the default mode you'll use with the RhythmoLab app.



In Mode 1, the 16 big face buttons are MIDI notes 53-67. These are mostly used to trigger samples.



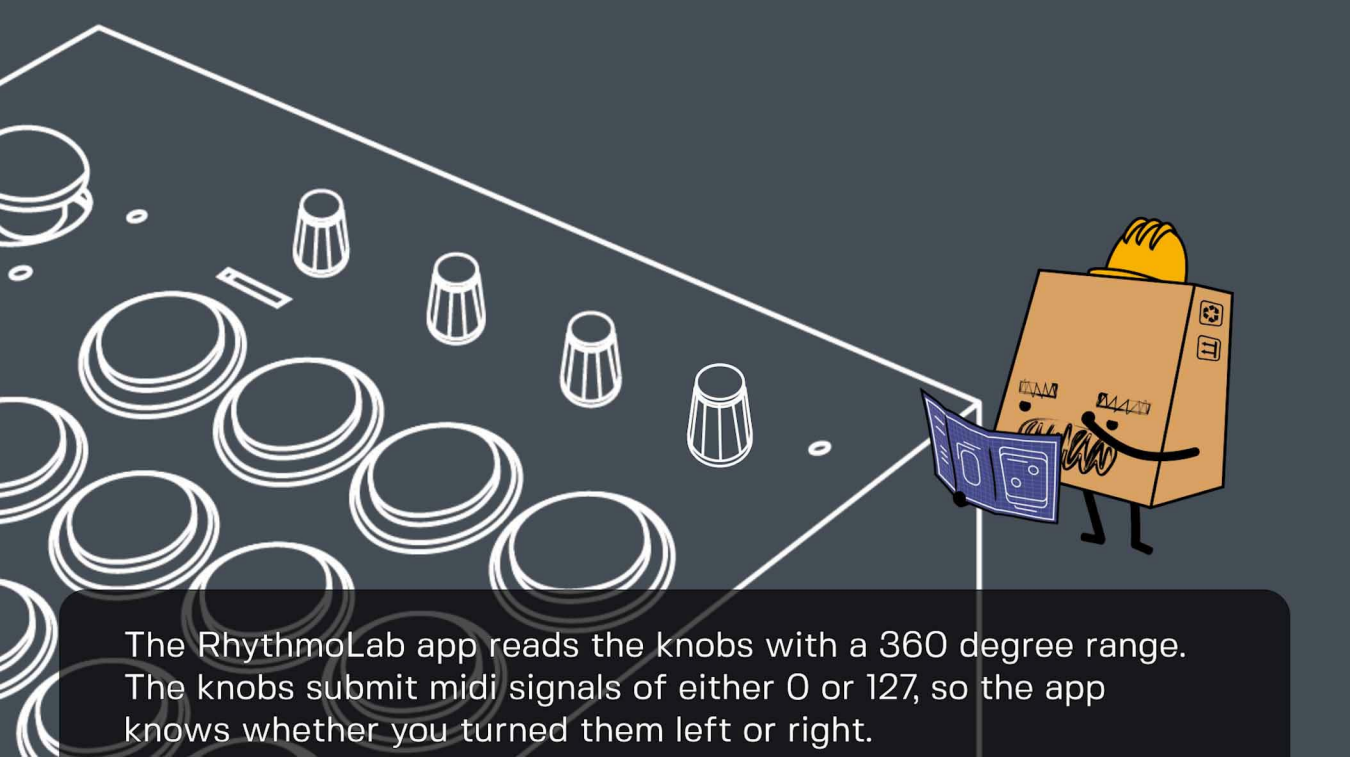


In some views, there are other controls that are set up in clusters of 16 buttons. They will all be controlled with these 16 buttons.

The 8 smaller side buttons are MIDI cc values. These are mostly used for editing functions.

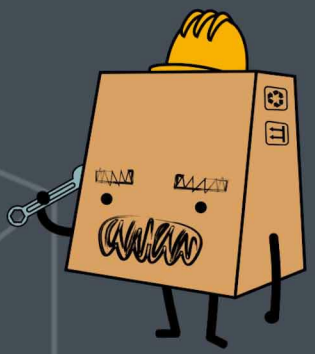
Every time you see a cluster of 8 functions in one place, it is most likely controlled with these buttons.

The Shift button is almost always used exclusively for shift functions on the screen. Most of the function buttons have more than one capability. These can be accessed and selected when shift is toggled.

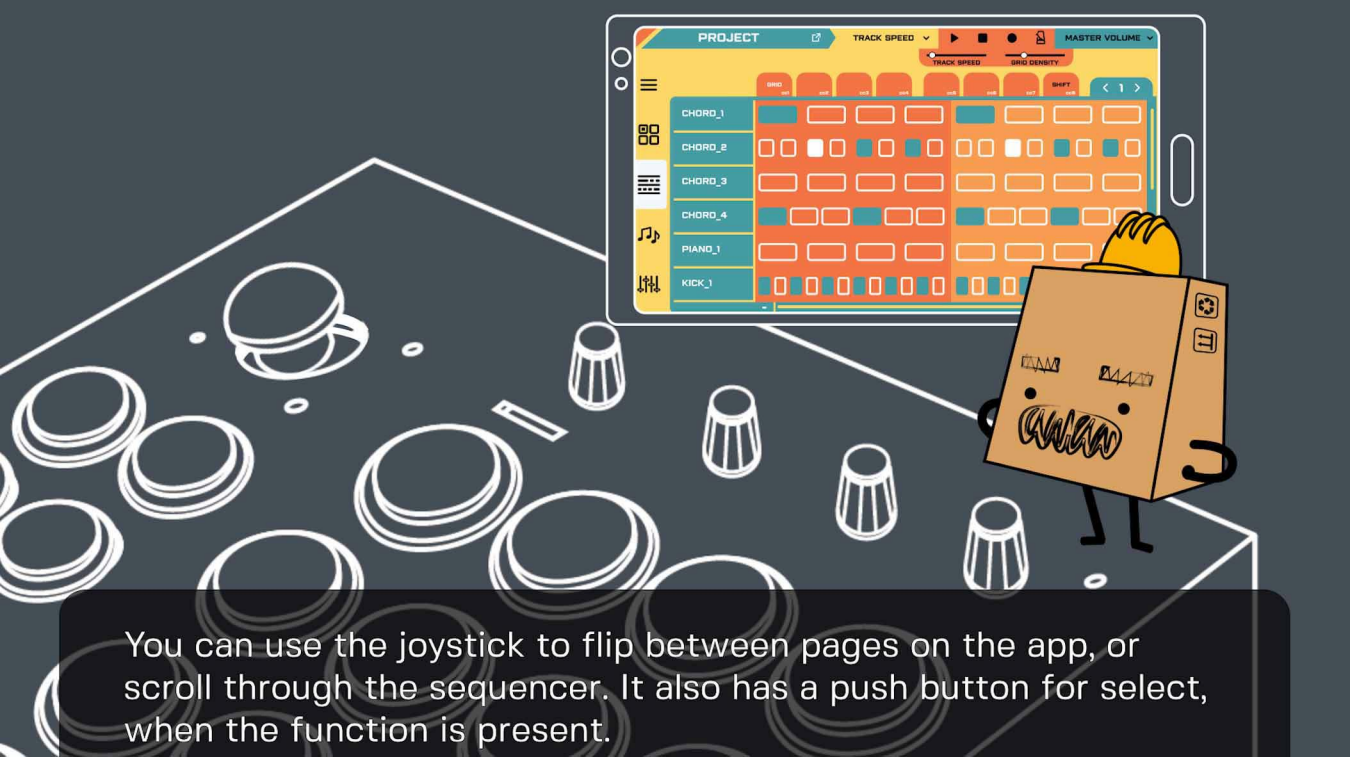


The RhythmoLab app reads the knobs with a 360 degree range. The knobs submit midi signals of either 0 or 127, so the app knows whether you turned them left or right.


Fun fact: the knobs also have push buttons built in! These also send out cc values.

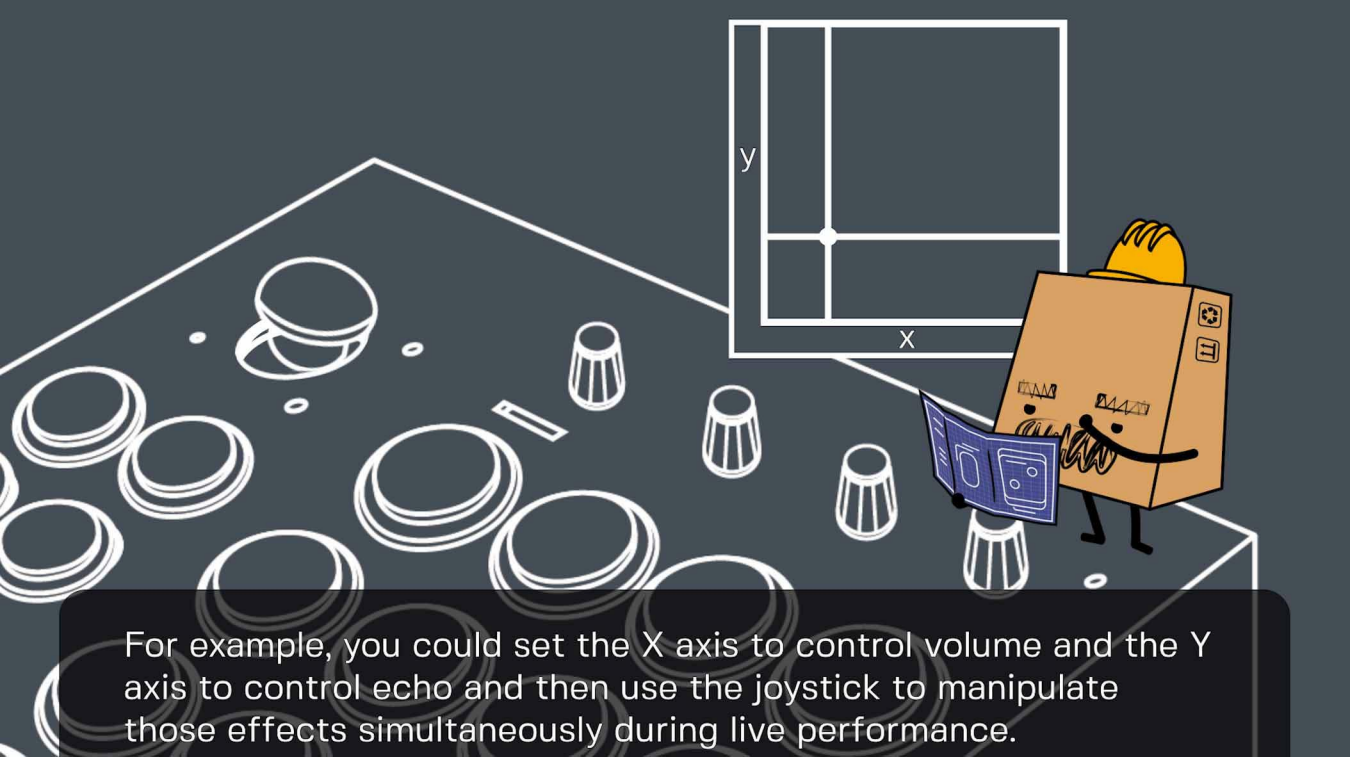


Every time you see a cluster of 4 function buttons, chances are they are controlled by these push buttons.



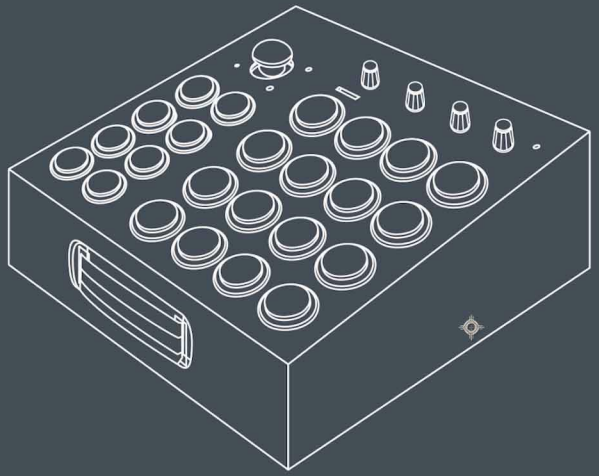
You can use the joystick to flip between pages on the app, or scroll through the sequencer. It also has a push button for select, when the function is present.

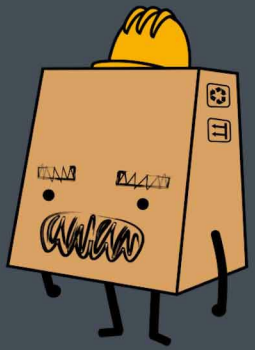
The joystick also controls x/y effects.



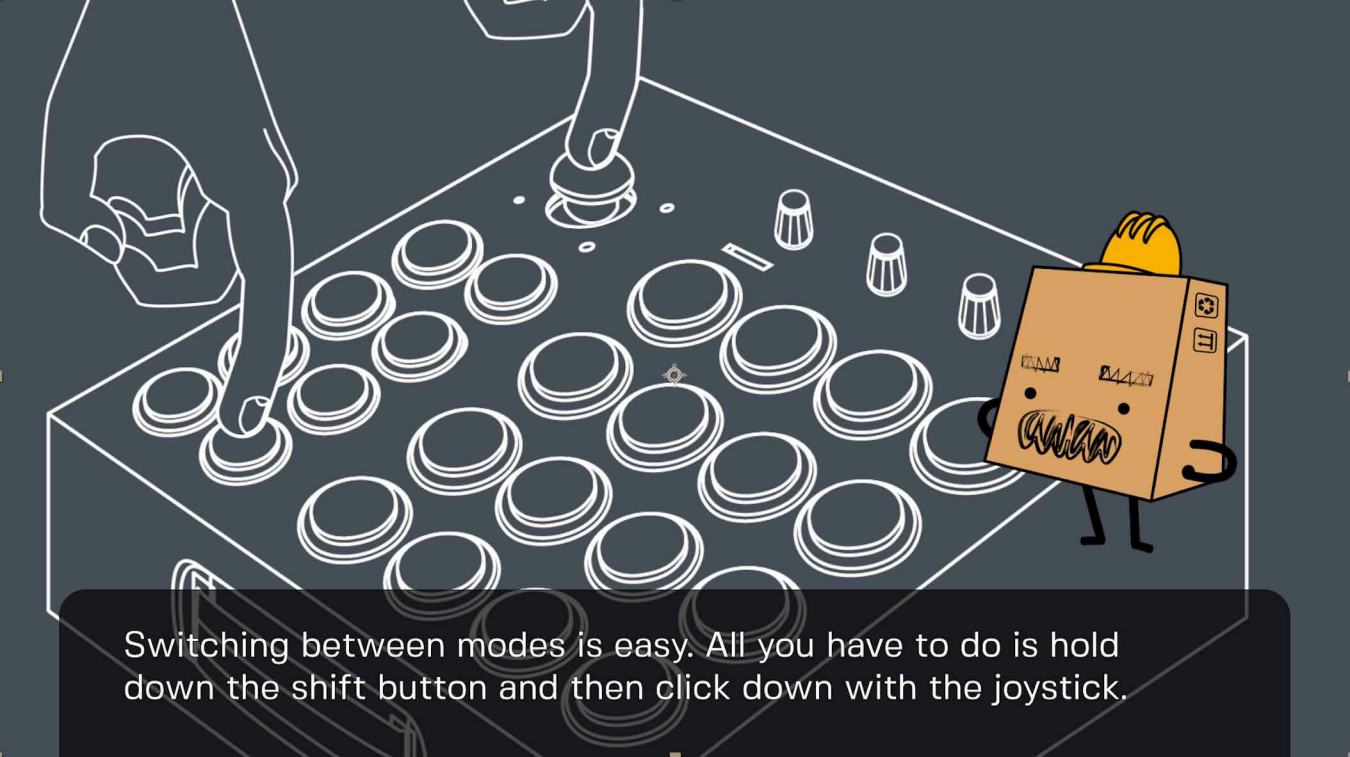
For example, you could set the X axis to control volume and the Y axis to control echo and then use the joystick to manipulate those effects simultaneously during live performance.

Most, if not all, functions in the RhythmoLab app can be controlled directly with hardware controls on the BeatBox. Be sure to try all of the buttons out on all screens and see what they do!

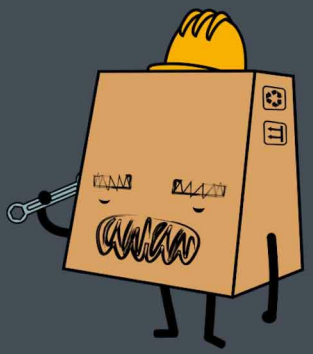




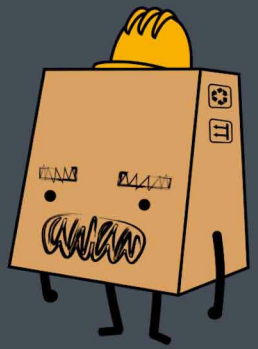
Mode 2 is the MIDI controller mode! You can use this mode with a 3rd party DAW.



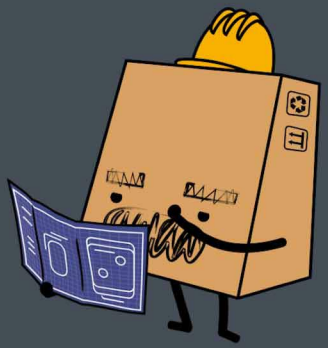
Switching between modes is easy. All you have to do is hold down the shift button and then click down with the joystick.



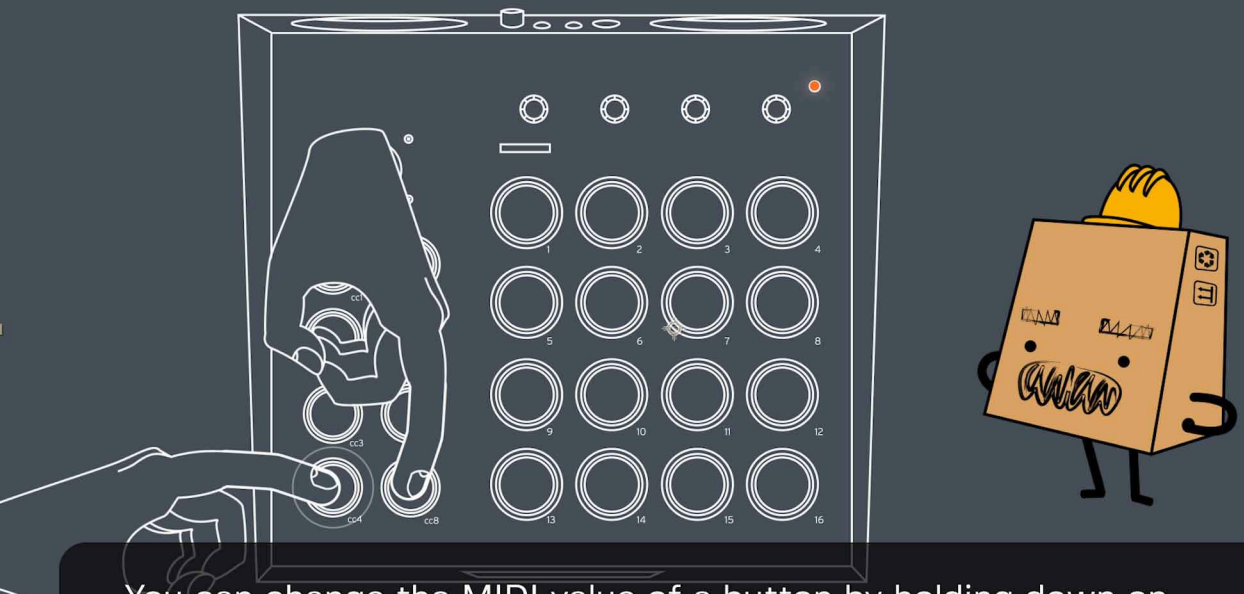
A little orange light will come on in the top right corner of your BeatBox to indicate that you are now in Mode 2.



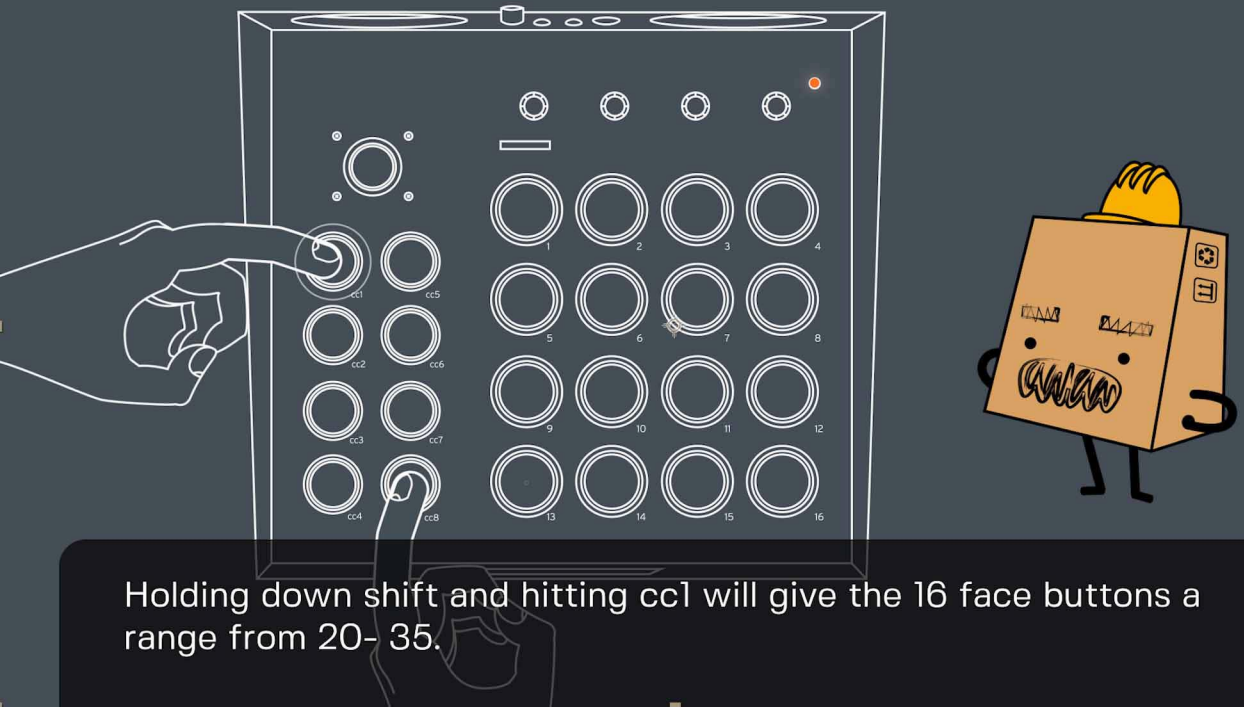
Now that you're in Mode 2 all of the buttons on the BeatBox are MIDI notes, even the 8 side buttons and the knob buttons. This makes more sense for controlling DAWs like Ableton.



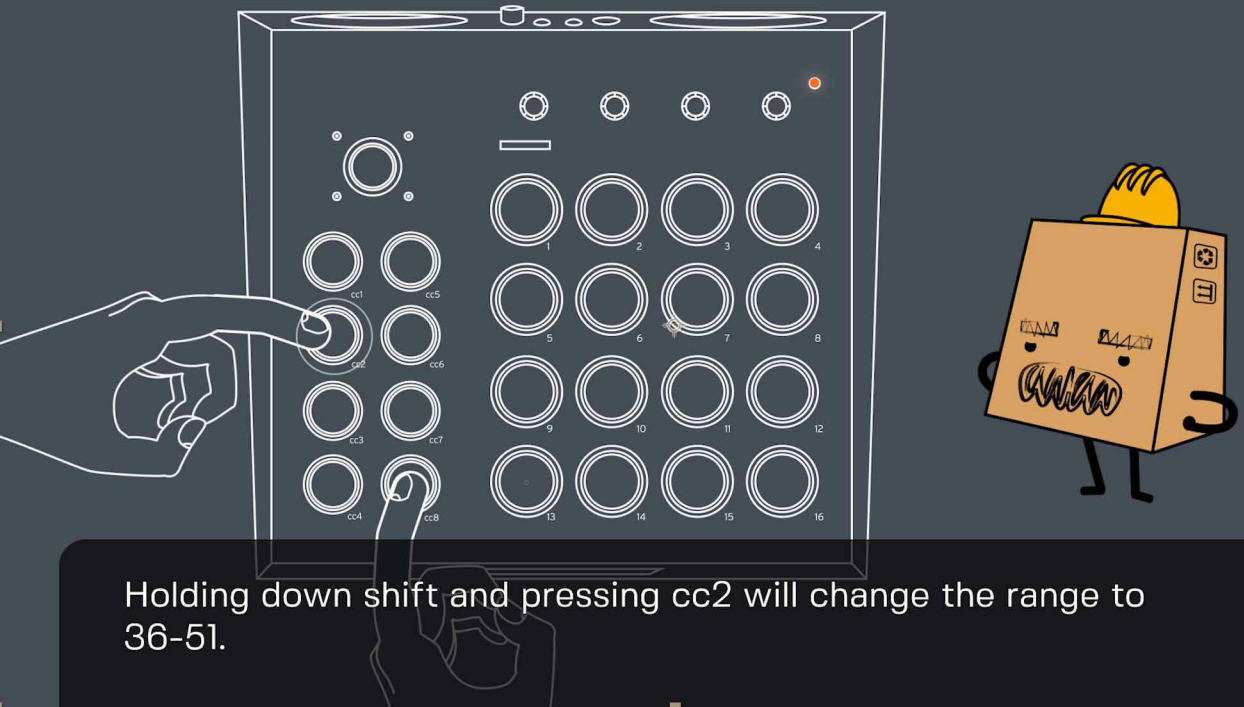
The side buttons, knob buttons, and joystick buttons send out MIDI note values 4 to 15.



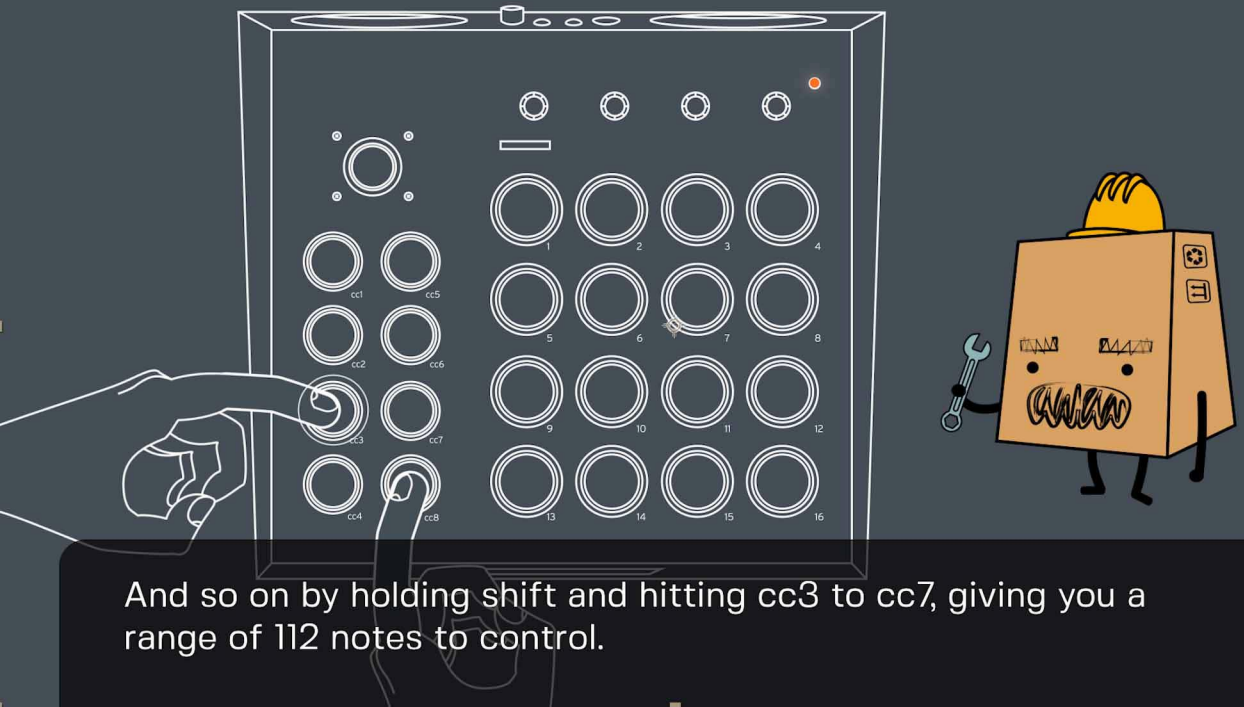
You can change the MIDI value of a button by holding down on shift and pressing on one of the 7 side cc buttons.



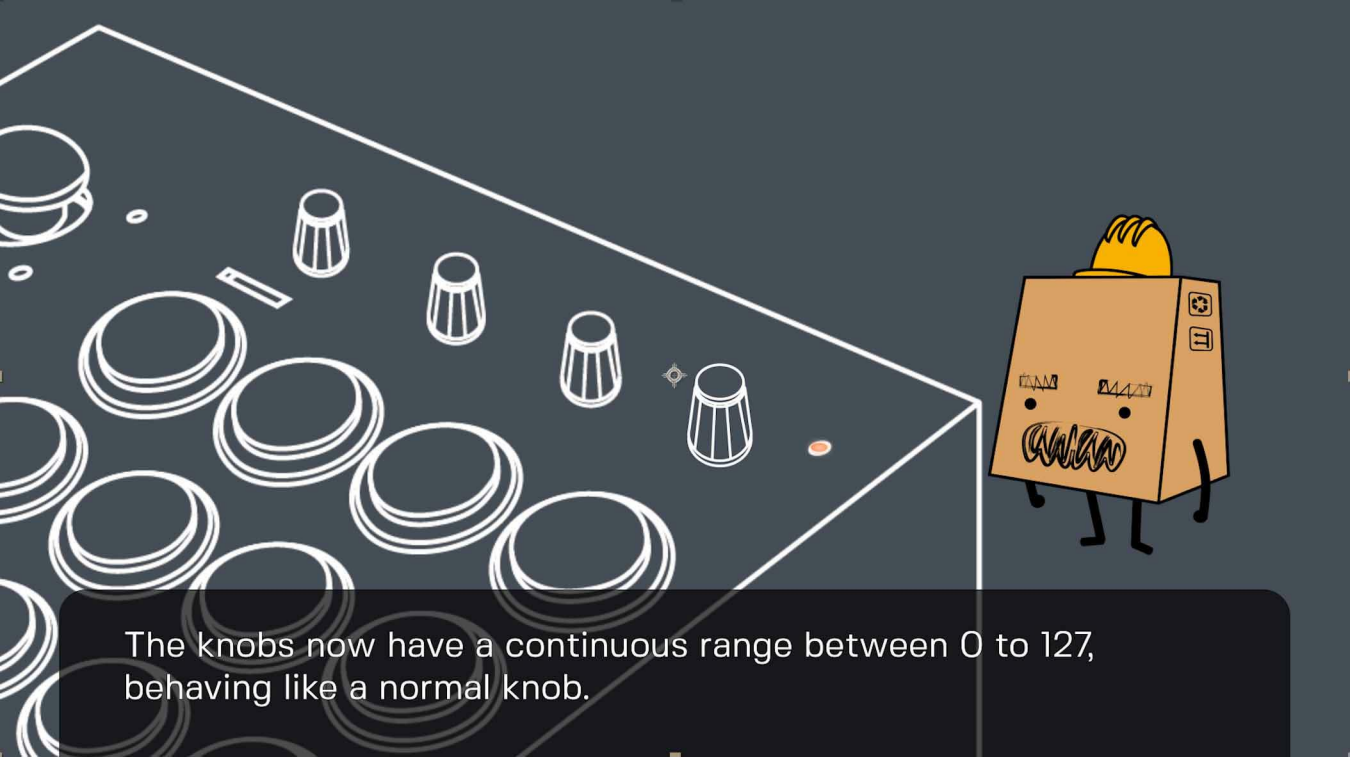
Holding down shift and hitting cc1 will give the 16 face buttons a range from 20- 35.

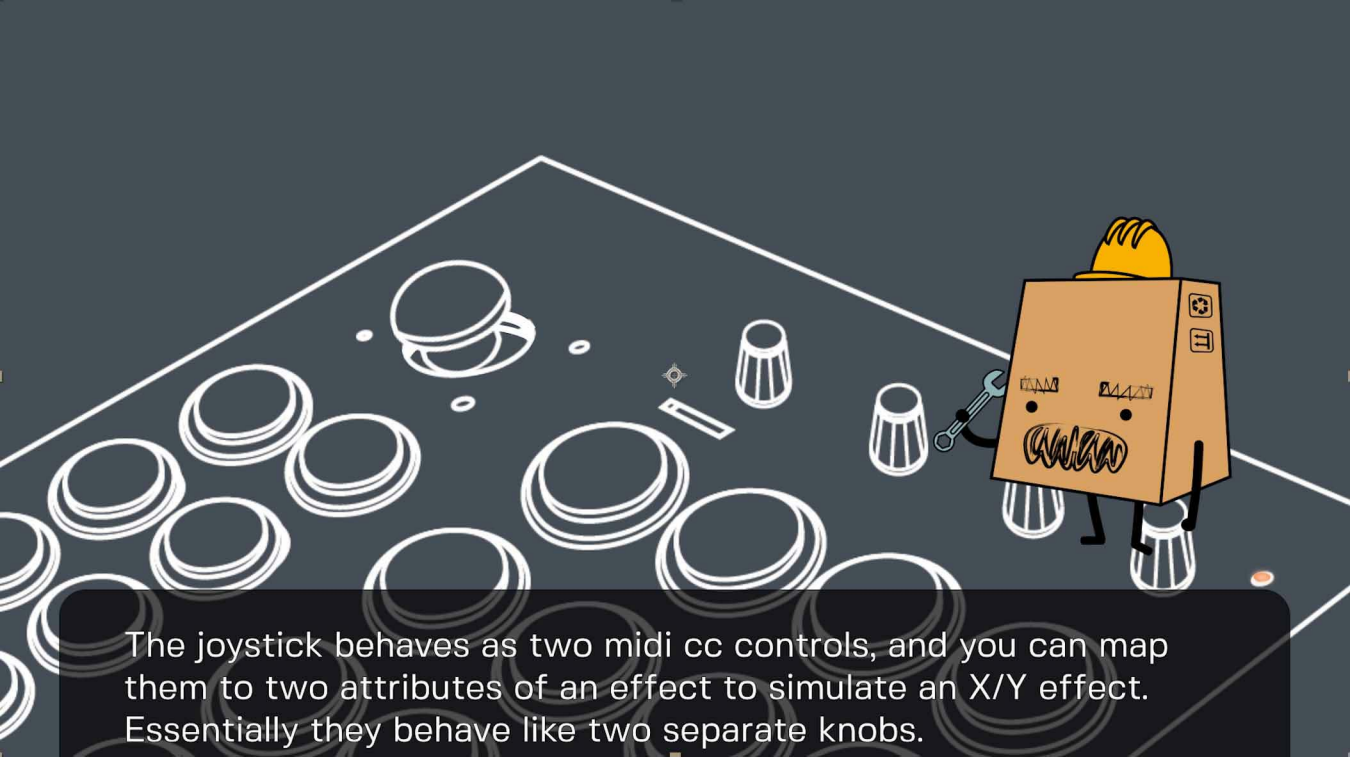


Holding down shift and pressing cc2 will change the range to 36-51.

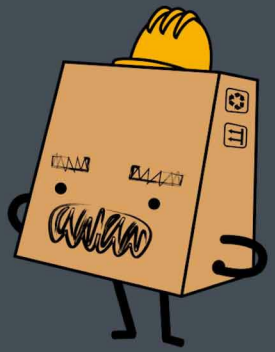


And so on by holding shift and hitting cc3 to cc7, giving you a range of 112 notes to control.


The knobs now have a continuous range between 0 to 127,
behaving like a normal knob.



The joystick behaves as two midi cc controls, and you can map them to two attributes of an effect to simulate an X/Y effect. Essentially they behave like two separate knobs.



Mode 2 is the one you'll want to be on if you are using the BeatBox with a 3rd party DAW!