

# METROBOARD



**READ BEFORE YOU RIDE**

**X22 User Guide**

**HP1 and HR1 Controller**

# First Things First

Congratulations on your new  
Metroboard X22!

From all of us at Metroboard, thank you!

If you have questions or concerns you  
can reach us at 360-851-9586 or  
[info@metro-board.com](mailto:info@metro-board.com)  
(note the hyphen)

Please read this guide while you charge.



# Charge!

Plug the charger into the wall and then insert the 4-pin connector into the charge port on the rear top plate of your Metroboard. The charger's LED light will turn red while charging and the charger's internal cooling fan may turn on.

When the light turns green, the board is fully charged.

Also be sure to charge your remote! Plug the micro-USB cord into the remote and plug the other end into any USB power source. Always charge your remote when you charge your board. That way, you don't have to remember when the last time you charged your remote was. If you're wondering, the remote has enough power for 3 or 4 rides. But don't gamble.

When the remote power is very low it will vibrate every few seconds. When that happens, stop and charge your remote immediately before you lose connection. In a pinch you can charge the remote from a pocket power source while riding, but only do so in an emergency.

## **Battery Tips**

Charge time from a drained battery to full is about 3 hours. Your board is shipped with the battery at ~50% charge, so you should be ready to ride in about an hour. 60-70% is also the optimal charge level to store your board if you don't plan to ride for more than a week.

For care of your battery, let it rest for ~20-30 minutes after you ride before putting it back on the charger. This will give the individual cells in the pack a chance to balance out and help ensure a full charge and a long-lasting battery. Additionally, leaving the board on the charger for another 15 minutes after the light turns green will also help ensure all the cells are balanced and at maximum capacity. There is no harm in leaving the board on the charger for longer, but we don't recommend leaving it plugged in all the time.

# Safety Gear

Everybody falls.

It is better to crack a helmet than your skull.

Always wear a helmet.

We strongly encourage a full-face helmet.

Gloves are also highly recommended because shredded palms are just the worst.

Knee and elbow pads are also advised.

Armored jackets and hoodies are a good idea.

Dress for the slide, not for the ride.

Helmet.

Gloves.

Knee & elbow pads.

Slide protection.

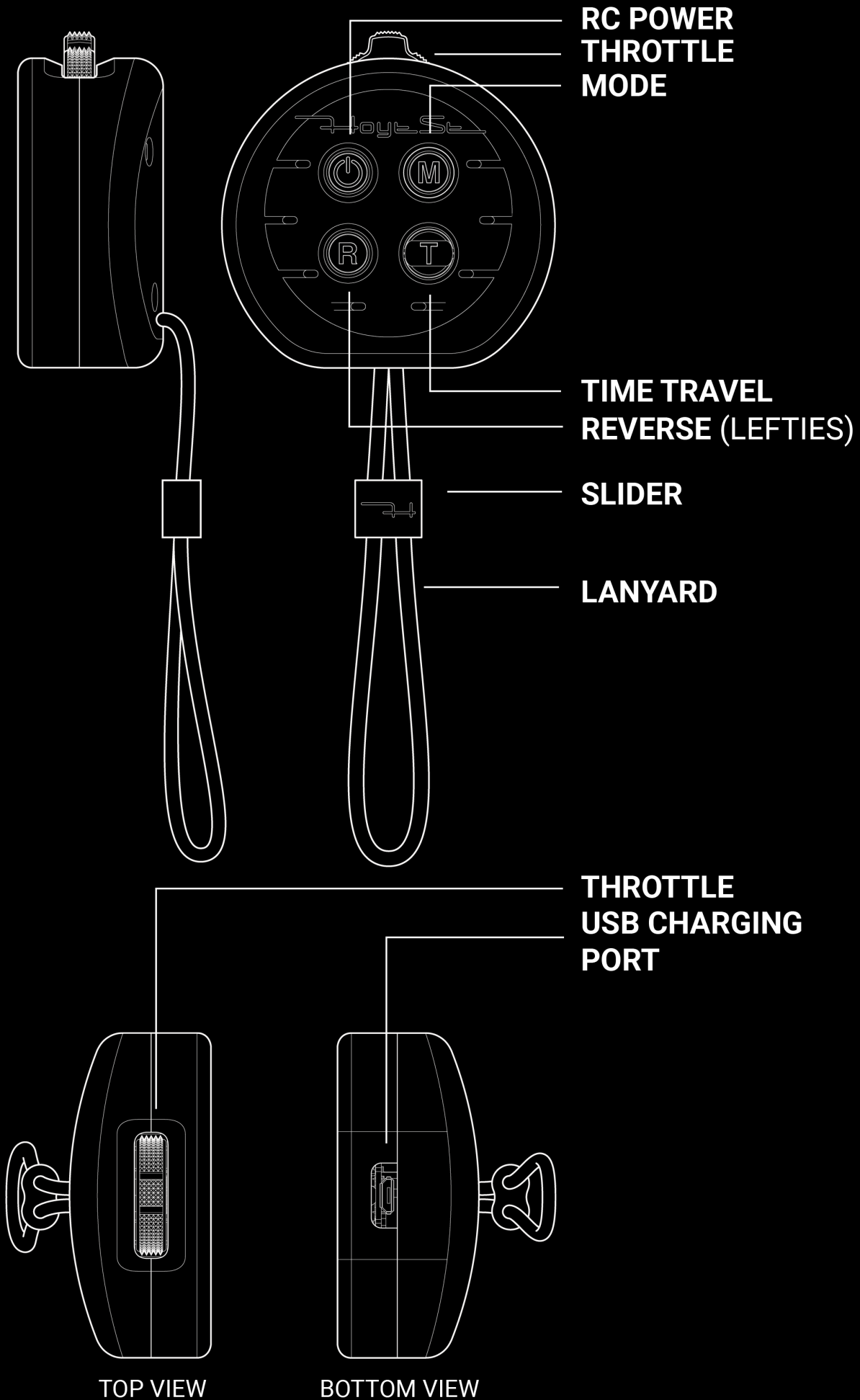


Study and practice how to fall without injury. Practice in the grass at your local park. Do not try to catch yourself with your arms extended. At speeds under 18mph it is possible to tuck-and-roll. At speeds beyond that, you should be prepared to slide.

Always ride within your ability.

# Remote Control Overview

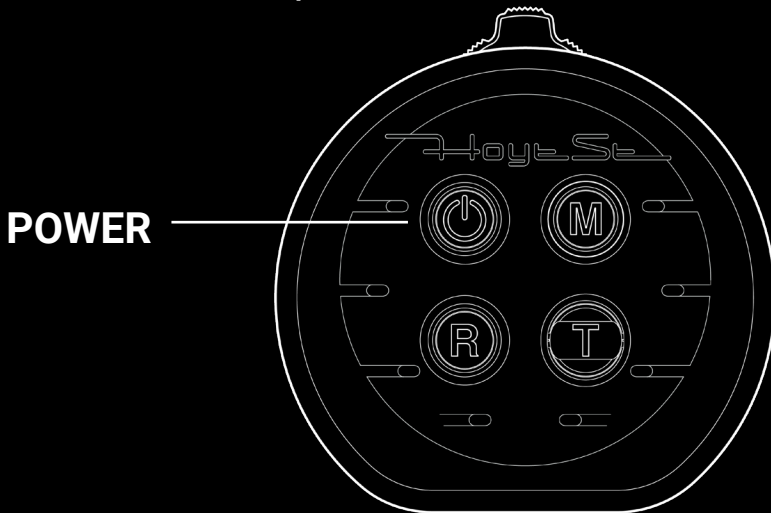
The Metroboard X22 ships with the rock-solid frequency-hopping Puck made by Hoyt St Electric Skateboards.



# Remote Connection

## To turn on the remote:

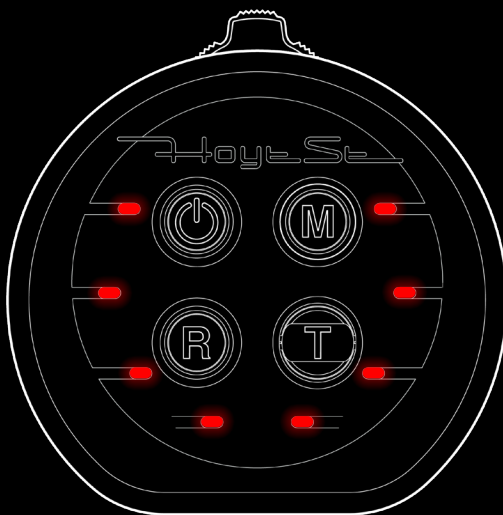
Press and hold the power button until it vibrates.



**ON:** Hold 1.5 seconds (short vibration)

**OFF:** Hold 1.5 seconds (long vibration)

**AUTO-OFF:** After 5 minutes of inactivity.



**Paired:** All the lights flash **RED** until the board is turned on.

**Un-Paired:** The lights will continue to flash red if the board has become un-paired.

## To Pair the remote:

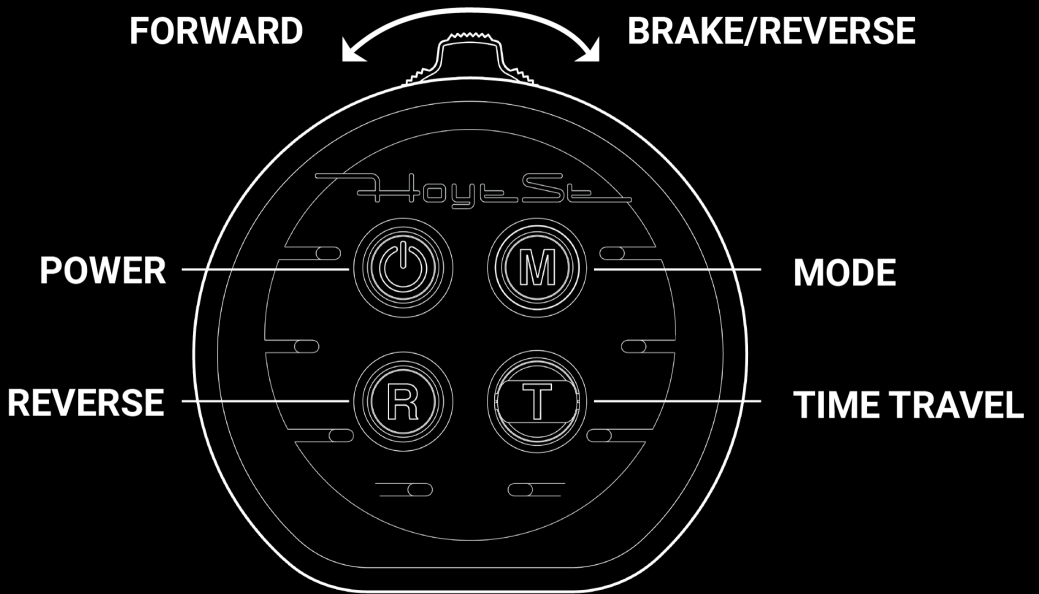
Pairing is the process of coupling your remote with the receiver built into the board. It is only necessary to do this if the remote does not connect to the board when both are powered on.

Turn off the skateboard and remote.

Simultaneously hold the **Power, Mode, & Reverse** button until the remote LEDs flash **GREEN** rapidly.

Turn on the Skateboard. Pairing is complete with the remote vibrates and stops flashing.

# Using the Remote Control



## Power Button:

Powering on and off requires a 1.5-second hold.

Double-press to lock the throttle. The LEDs will glow **BLUE** when locked.

## Mode Button:

The Hoyt St remote control features 3 speed modes. Press this button to cycle through the modes. The remote will vibrate once, twice, or thrice to indicate which mode you are in.

**Mode 1:** Learning mode for beginners

**Mode 2:** Intermediate mode suitable for most riders

**Mode 3:** Advanced full-power mode

## Reverse Button:

For left-handed users, hold this button for 1.5 seconds until the remote vibrates and beeps. **Test throttle direct before riding!**

## Time Travel Button:

Feature not yet unlocked.

# Inspection

Always inspect your board before riding. Here are some things to check:

Axle nuts should be tight but not overly tight to keep the wheels from free-spinning. Tighten each axle nut until it stops and then back off  $\sim 1/6$  turn to give the wheel the smallest detectable bit of "slop" (or wiggle).

Check your belts and pulleys often for small rocks or other debris as these can cause uneven and early wear. If you hear a "tick-tick-tick" sound as you ride, check your belts for tiny pebbles. A small hex key works well to pluck tiny rocks wedged in pulleys and belts.

Check for loose hardware screws. If you have screws which keep backing out due to vibration, we recommend adding a drop of Loctite Threadlocker Blue 242.

Always test your remote connectivity as part of your pre-ride inspection. Use the handle on the Metroboard to lift the rear wheels up off the ground and test the remote by throttling the thumb-wheel gently all the way forward, and braking/reversing by pulling all the way back.

## Recommended Tools

Lid Enclosure Screws: 2.5mm hex

Axle Nuts: 11/16 socket

Kingpin Nuts: 9/16 socket

Motor Mounts: 5/16 socket





# Your First Time

An empty parking lot is the perfect place to practice and fine-tune your trucks. Bring your skate tool along on the first few rides to make truck adjustments while you're still getting a feel for the board.

## Powering On

We recommend turning on the remote first, and then powering on the board.

1. Press the power button on the remote for 1.5 seconds
2. Press the power button on the rear top plate of the Metroboard

The board and remote should link automatically. If the remote does not connect immediately see the **Remote Connection** in this guide.

## Test the remote

Always test your remote connectivity as part of your pre-ride inspection. Use the handle on the Metroboard to lift the rear wheels up off the ground...

## Accelerating

With the drive wheels off the ground, test the remote by throttling the thumb-wheel gently forward.

## Braking

Pull back on the thumb-wheel to brake. Once the board has stopped, simply let go of the thumb-wheel.

## Reverse

If you keep holding the thumb-wheel back after you come to a stop, the board will start to go in reverse. Push the thumb-wheel forward to brake when riding in reverse.

## Lights

The left remote button toggles the lights on and off and cycles brightness through 3 modes. The sequence is: brightest, off, medium, off, low, off.

# New Rider Tips

Your feet should be parallel to each other with your toes pointed slightly forward on the deck.

Prepare for acceleration by bending your front leg slightly and bracing with your back leg.

Prepare your body for braking by bracing your front leg and bending your back leg a little.

Now, practice accelerating, braking, and turning heel-side and toe-side. The faster you go, the easier it is to turn.

Always keep one foot on the board when stopped. This will keep you from accidentally bumping the thumb-wheel and sending your board into traffic or a pedestrian. It's a good habit to start now.

Never stand on the board or let anyone else stand on the board while someone else is holding the remote.

Put the lanyard around your wrist while riding.

Practice Foot Braking. This maneuver can save your life in a pinch.

Ride within your capabilities.



# Adjusting Your Trucks

Double-Kingpin (DKP) Trucks have more going on than traditional trucks, but they offer a more fine-tunable experience.

The easiest way to think about your trucks is that you want the front road-side pair (F3-F4 shown below) loosest of all to facilitate turning, and the rear board-side pair (R1-R2) tightest of all to prevent speed wobbles. The other two pair should be somewhere in the middle according to your preference. This illustration shows the trucks in the wheels-up position and depicts all of the bushing hardware in installation order for a medium-weight rider.


**Riptide Bushing Installation Guide**





















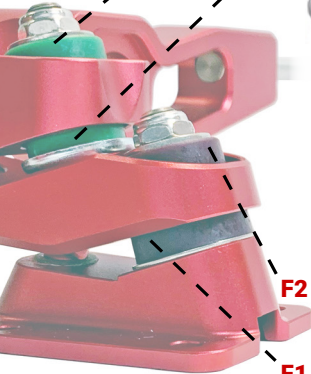
**WEIGHT CLASSES:**  
**Light:** <160 LBS / 72 KG  
**Medium\*:** 160-200 LBS / 72-90 KG  
**Heavy:** >200 LBS / 90 KG

\*Illustration depicts Medium

**Questions?**  
 Email [info@metro-board.com](mailto:info@metro-board.com)  
 or Call 360-726-3785

Shop our store at [www.metro-board.com](http://www.metro-board.com)



		ROAD SIDE			
		87A (white)	Light	90A (green)	
		90A (green)	Medium*	93A (burgundy)	
		93A (burgundy)	Heavy	96A (grey)	
		<b>Kingpin Nut</b>		<b>Kingpin Nut</b>	
		<b>Small Flat Washer</b>		<b>Small Flat Washer</b>	
		<b>Short Street Barrel</b> (Rounded side down)		<b>Short Street Barrel</b> (Rounded side down)	
		<b>Street Barrel</b> (Rounded side up)		<b>Street Barrel</b> (Rounded side up)	
		<b>Large Cup Washer</b>		<b>Large Cup Washer</b>	
			<b>DECK SIDE</b>		
		90A (green)	Light	90A (green)	
		93A (burgundy)	Medium*	93A (burgundy)	
		96A (grey)	Heavy	96A (grey)	
		<b>Kingpin Nut</b>		<b>Kingpin Nut</b>	
		<b>Small Flat Washer</b>		<b>Small Flat Washer</b>	
		<b>Short Street Barrel</b> (Rounded side down)		<b>Short Street Barrel</b> (Rounded side down)	
		<b>Street Fat Cone</b> (Wide side down)		<b>Street Chubby</b> (Wide side down)	
		<b>Large Flat Washer</b>		<b>Large Flat Washer</b>	
	<b>F4</b>				<b>R4</b>
	<b>F3</b>				<b>R3</b>
	<b>F2</b>				<b>R2</b>
	<b>F1</b>				<b>R1</b>
<b>◀ FRONT</b>					<b>REAR ▶</b>

If the board feels overall too loose, start by tightening each nut 1/3 turn. If the board seems too hard to turn, start by loosening the front trucks 1/3 turn at a time.

Take care not to overcompress your bushings. If they're bulging in the middle, back off. There shouldn't be more than 3 threads of the kingpin exposed. If the board still feels too loose, you need harder bushings.

# Changing Wheels

The following steps describe the wheel swap procedure. If you prefer to watch and learn, we've got a video you can follow along with here: <https://metro-board.com/pages/wheel-swap>



## Step 1

Remove the rear handle from the Metroboard X, Remove the belt covers from each side, & loosen all 4 motor mount bolts on each side.



## Step 2

Insert the M5 35mm screw into the back of the motor plate. Thread by hand until it stops. Use a tool to turn the screw a few times to compress the spring and put slack on the belt.



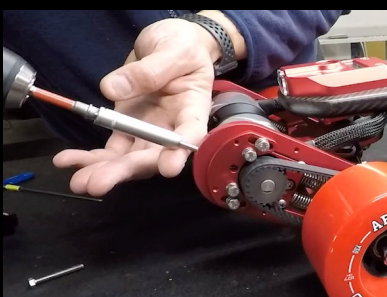
## Step 3

Remove the axle nut and remove the wheel, pulley, and belt. A speed ring should remain innermost on the axle.



## Step 4

Put on the new pulley, belt, and wheel. When switching to street wheels you will need to add a Wheel Spacer lastly before putting on the nut. Tighten the axle nut until it stops and then back off 1/2 turn. Do not overtighten!



## Step 5

Remove the M5 screw. Give the wheel a few spins both directions to allow the perfect tension to settle. Re-tighten all 4 motor mount bolts and re-install the belt cover. Repeat Steps 2-5 for the other side and then re-attach the handle.



## Step 6

Replace your front wheels, taking care to include a Wheel Spacer lastly on each side when changing to Street Wheels. Keep your wheel spacers in a safe place when not in use.

# Do's & Don'ts

Know the law. Research and obey local traffic, sidewalk, and trail rules, ordinances and laws in your area.

Be courteous and give the right of way to pedestrians.

Do not ride under the influence of drugs or alcohol. You can still get a DUI.

Avoid water and do not ride in wet conditions. Your Metroboard is sealed against the elements, but riding in the rain or on wet roads is especially dangerous due to slick roads and poor visibility. If you get caught in a down-pour, seek shelter and try to wait it out.

Do regular inspections and maintenance to check nuts and hardware, bearings, bushings, pivot cups, and look for debris caught in belts and pulleys.

Creeky/Squeaky bushings and pivot cups can be remedied with graphite powder, wax or soap shavings. Do not use petroleum-based lubricants on your bushings (including most canned spray types) as these will destroy your bushings.

Keep your AT wheels aired up. More pressure means more range, but at a cost to comfort. If you have the range to spare, try a little less than max PSI for a softer ride. We set the pressure at 25PSI at the factory. 36PSI is the recommendation by the manufacturer for our 155mm and 200mm wheels.

Rotate your wheels occasionally to keep the wear even. (i.e. Put the drive wheels on the front and vice versa.)

Do not store your Metroboard where temperatures will swing wildly or get excessively cold (below 50° F) or hot (above 90° F). This is not good for the battery.



# FCC Statement

## **WARNING:**

Changes or modifications not expressly approved by the party responsible for compliance void the users authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is not guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Re-orient the receiving antenna

Increase the separation between the equipment and receiver

Connect equipment to an outlet on a circuit different from that which the receiver is connected

Consult a dealer or an experienced radio TV technician for help.

## **Wireless Electrical Parameters:**

RF Range: 2408-2475MHZ

RF Power: >20dBm(EU

Input Power: 1S3.7V \*1000mAh

HP1: 2AZE4-HP1

HR1: 2AZ4-HR1

# WARRANTY

We offer a 6 month warranty, which can be extended up to 3 years through Extend, available at purchase or any time during the initial 6 months. We also offer one free maintenance (shipping borne by customer) and fair prices on any additional repairs or spare part needs.

## **Spare Electric Skateboard Parts**

We stock a variety of spare Electric Skateboard Parts including wheels, timing belts, chargers, remotes, and every other part of the electric skateboard! We honestly don't sell a lot of spare parts due to the super high quality of our components which are designed to last a long time (typically 2-3 years)! Nonetheless, we'll have them ready for you to make sure your Metroboard Electric Skateboard is always up and running!