

# LMX 56

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TECHNICAL  
DOCUMENTATION  
2023



 **LMX BIKES**  
MORE THAN A BIKE

*"Light is right"*



Lightweight **MotoCross**

(MX)

# ABOUT LMX BIKES

BPI French Tech certified, LMX has been manufacturing **freeride electric two-wheelers** since 2016.

**Know-how** ⇒ **Design - Manufacturing - Assembly** *Made In* 

**Mission** ⇒ Offer **high-performance, light** and **accessible** products, while respecting an **excellent offroad reliability**

Workshop located in Jonage (Rhône, France), near Lyon

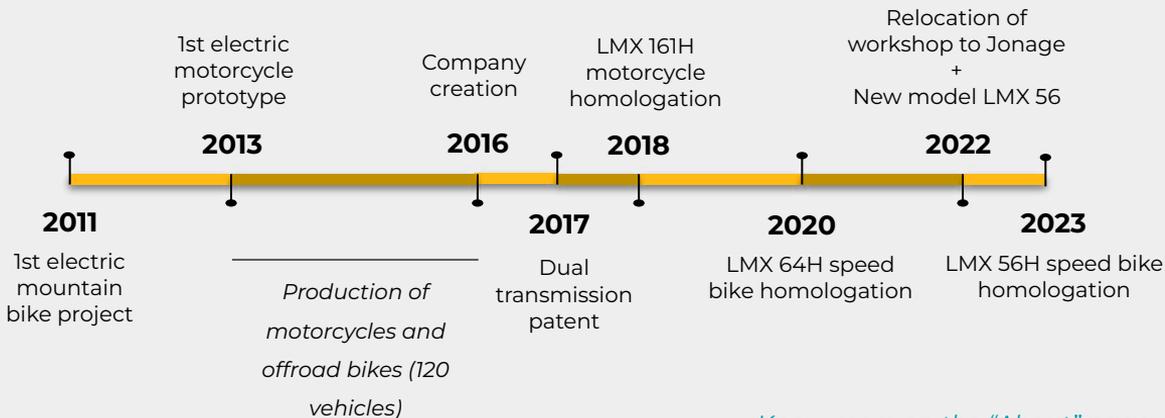


“

Our team shares the same vision of an electric future for motorsports.

Thanks to the solid technical foundations of our two models, we regularly deploy new ranges to adapt our products to the uses of all our customers. ”

*Adam Mercier, director of LMX Bikes*



[Know more on the "About" page](#)

# THE LMX TEAM

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LMX is a team of enthusiasts who work every day with the aim of growing the company to offer drivers ever more innovative and efficient vehicles.

Maintaining our independence and developing our know-how are part of LMX's daily missions. Thus, we take care of the design, manufacture, assembly, sales, marketing and maintenance of the LMXs in-house.

## A real diversity of professions and know-how

DESIGN/R&D

MANUFACTURING

ASSEMBLY

MARKETING/COM

SALES DEPARTMENT

MAINTENANCE

ACCOUNTING





**FRENCH INNOVATION AT THE SERVICE OF SPORTING PLEASURE**





**OPEN THE WAY,  
OUTRIDE YOUR FRIENDS,  
INCREASE YOUR PERFORMANCE.**



**45 km/h**

Max assistance speed



**2 500 W**

Engine peak power



**1 000 Wh**

Battery capacity



**A single app**

Personalize your experience as much as possible

A ever-evolving LMX



**Pedal assist + Throttle**

A unique dual assistance

“

**Ride harder, faster. Climb longer and longer. The ultimate goal of any rider.**

Powerful and connected, the LMX 56 offers you exceptional and unique riding sensations, halfway between a bicycle and a motorcycle.

Forget the clamping at 25 km/h and find the engine performance of a trial bike (up to 200 Nm at the wheel).

*Adam, CEO of LMX Bikes*

[Know more about the LMX 56](#)

# TECHNOLOGY : DUAL ASSISTANCE

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*"The best of cycling and motorcycling brought together in a single speed bike made in France !"*

In addition to a torque sensor, the LMX 56 has a handlebar throttle.

The ideal way to rediscover the feeling of **freedom on a motorcycle!**

These two assistances allow you to lengthen the outings and make the sporting pleasure last :

- **The pedaling torque sensor** delivering power proportional to effort and the assistance mode chosen on the screen.
- **The accelerator on the handlebars** that allows you to apply the throttle at any time to overcome an obstacle or go back uphill, like on a motorcycle !



# TECHNOLOGY : PATENTED LMX TRANSMISSION

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*“The LMX 56’s patented dual freewheel transmission makes possible the concept of a reliable, powerful and lightweight off-road speed bike”*

Thanks to a double freewheel system, the hub of your LMX incorporates two transmissions, independent of each other :

- **1 belt for pedaling**
- **1 chain motor side**

## **ADVANTAGES**

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- Wear is limited as well as breakage on the side of the pedaling chain
- Totale independence of the different assistance modes up to 45km/h
- A validated and patented LMX technology used since 2017



# CONNECTIVITY : THE APP

The great novelty of the LMX 56: its **high level of connectivity** which opens up the field of possibilities in terms of customization and uses!

## ✔ *Your smartphone becomes your screen*

- Driving data display
- Changing modes directly on the app or via the Smart LED on the handlebars for safe riding

## ✔ *Plan your outings intelligently*

- Proposal of routes and cartographic representations
- Calculation according to your situation at time T (battery level, altitude difference)

## ✔ *Customize your assistance modes for a unique "motor tuning"*

- Adjustment of Eco, Mid and High modes (level of power and maximum speed, maximum torque, accelerator or not, etc.)

## ✔ *The system adapts to your profile and that of your LMX*

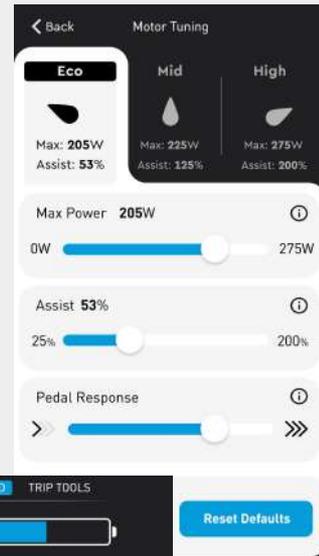
- Weight, LMX configuration, riding mode and conditions
- For ever more precise data

## ✔ *Share your ride on sharing apps (Strava)*

- Export your best outings and share them with your friends

## *Enjoy new features all the time*

- Thanks to the updates available from the application, your LMX is continually enriched with new features





## TECHNICAL SPECIFICATIONS



# AN ADVANCED MOTORIZATION

## A POWERFUL ENGINE BLOCK

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### Up to 45 km/h speed assist !

- **2500 W** peak power
  - Rated power of 2000W
  - Up to **171 N.m** maximum torque at the wheel
- 
- Central motor block, brushless type
  - Air cooling
  - ISIS standard cranks
- 
- Only one connector to disconnect to disassemble the block
  - Torque sensor and controller integrated in the block
  - Sealing optimized by lip seals on all interfaces



# AN ADVANCED MOTORIZATION

## BATTERY PERFORMANCE INCREASED

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### 1000 Wh of battery to follow you in all your outings !

- **Assistance** autonomy  $\Rightarrow$  from **45 to 100 km**
  - Autonomy **without pedaling**  $\Rightarrow$  from **30 to 40 km**
- 
- Removable for charging, easy and quick replacement
  - CAN bus communication, temperature sensors and on-board diagnostics for long life
  - 52V, 20Ah design
- 
- Full charge 4h
  - 4 A external charger with 230 V
  - Power-supply
  - 500 charge-discharge cycles up to 80% of initial capacity



# SUSPENSIONS

## FORK

**Formula Selva S** or **FOX 38 Kashima**

Air Technology

Diameter 35mm or 38 mm

**Travel 160mm**

Adjustments: pressure, compression, rebound and lockout



## SHOCK ABSORBER

**Formula Mod** or **Fox DHX**

**Travel 160mm**

Compression, rebound, preload settings

2 eccentric trim settings

Progressive suspension



# VERSION

## H

Street legal 45 km/h (moped category L1e-B)

Equipment included: mudguards, left mirror, stand, front/rear lighting, plate holder.

## I

Not allowed on public roads (offroad)

Use only on circuits or private roads



## FRAME

Frame material / rear buckle / swingarm **6061-T6 aluminium** (aviation quality)

⇒ **Made in France**

**Integrated battery**, removable without tools

Full frame weight : 5.5 kg

Wheelbase : 1245 mm (M), 1305 mm (L)

Caster angle **64°**



## BRAKES

Formula Cura 4-e disc brakes

Front 203 mm / Rear 203 mm

2.3mm discs

4 front pistons / 4 rear pistons



## SMART LED

Management of the assistance modes thanks to the colors of the LED.

### 4 modes available :

- Neutral
- Eco-friendly
- Mid
- High

Access to the battery charge according to the color of the LED.



## PERIPHERAL DEVICES

### PACK 1

**SRAM NX** derailleur / **Tranzx AL7075**

150 mm dropper post

Or

### PACK 2

**SRAM AXS GX Eagle** derailleur /

**Rockshox Reverb AXS** dropper post



### SELLE

Italia Origine Ou Velo Ultimate

### PEDALES

Standard Ou Wellgo B321 Alu Sealed



## RIMS

### FRONT WHEEL

Mach1 rim 30mm x 29"

### REAR WHEEL

Mach1 rim 35mm x 27.5"

**LMX hub : Double transmission chain technology (LMX patent pending).** Boost 157mm, reinforced freewheel.

### FRONT TIRES

Schwalbe 29" x 2.6"

### REAR TIRES

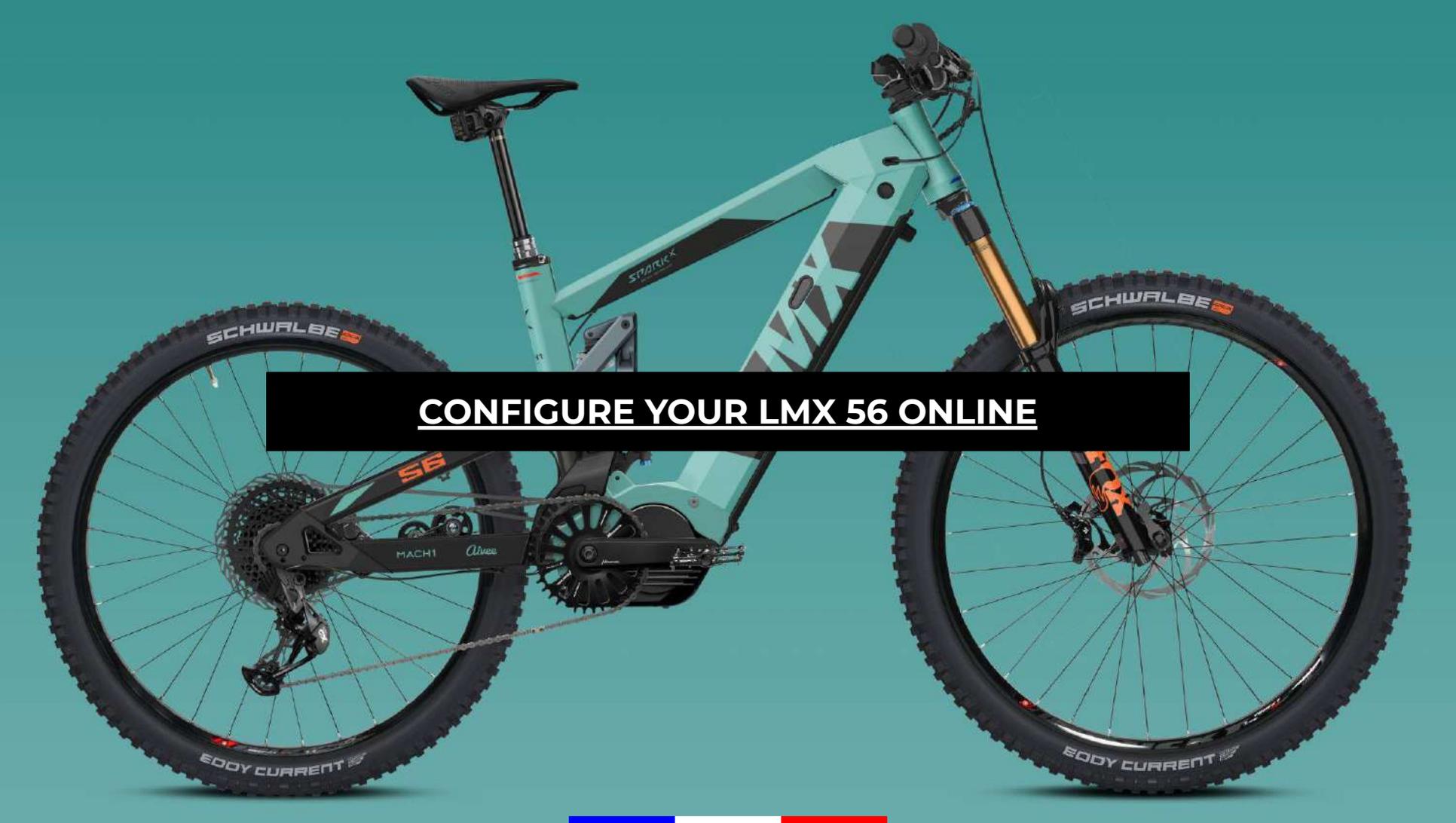
Schwalbe 27,5" x 2.8"





**CONFIGURE YOUR LMX 56 ONLINE**

The image shows a side profile of a mountain bike. The frame is primarily white with black and orange accents. The main frame tube has 'LMX' written in large black letters. The top tube has 'SMARTEK' in small letters. The seatpost is black. The handlebars are black with orange grips. The front fork is black with orange accents. The tires are black with 'SCHWALBE' on the top and 'EDDY CURRENT' on the bottom. The rear wheel has '56' on the frame. The drivetrain includes a black crankset with 'MACH1' and 'Alisee' on the crank arms. The rear wheel has a cassette and a rear derailleur. The front wheel has a disc brake. The background is a plain, light gray color.



**CONFIGURE YOUR LMX 56 ONLINE**



**LMX CLOSER TO YOU THANKS TO OUR DEALERS**



# YOUR LMX DEALER

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LMX Bikes is growing and more than ever wants its two-wheelers to be accessible to its customers, in France and abroad.

Our resellers :

- Make possible a privileged relationship with our customers in their region.
- Provide information, carry out tests and support the commercial part.
- Provide after-sales service and maintenance thanks to their technical expertise.



[En savoir plus sur Les Revendeurs LMX](#)

# FIND US ONLINE

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[LMX website](#)



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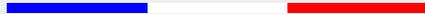
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# CONTACT

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