

WATT'S UP WITH E-BIKES, E-SCOOTER, E-THINGS, AND E-MOTOS

WISCONSIN GOVERNOR'S CONFERENCE ON HIGHWAY SAFETY

August 25, 2026

David Salmon – City of Sun Prairie Transportation Department; APBP – WI Chapter

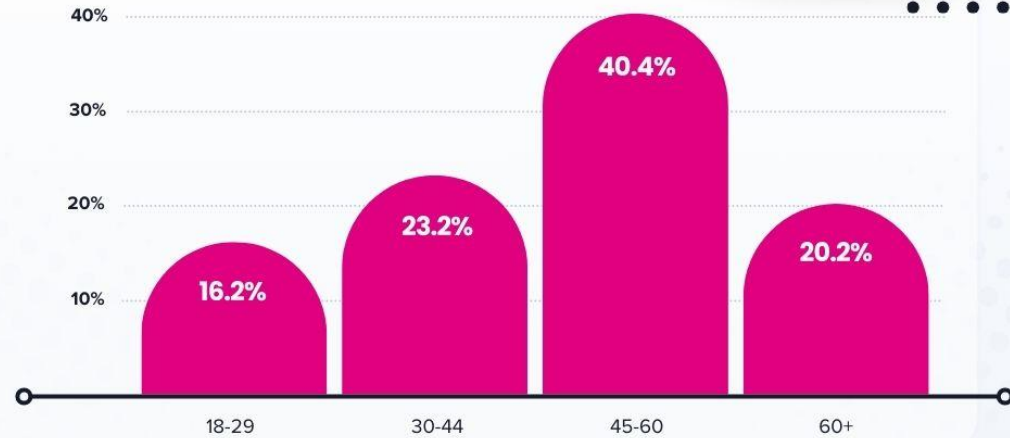
Sgt. Sean Hamill – City of Green Bay Police Department

■ US E-BIKE SALES GREW 269% FROM 2019 TO 2022, OUTPERFORMING TRADITIONAL BIKE SALES ■

SOURCE: [ABC NEWS \(2023\)](#)

Age Distribution

OF E-BIKE OWNERS

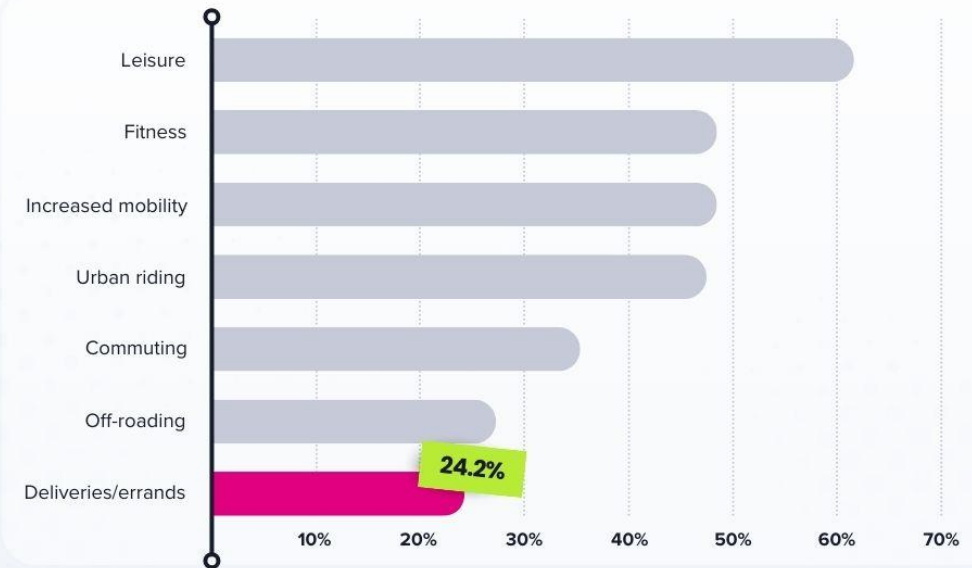


Source: eBikes.org

eBikes.org

Main E-Bike Uses

OF E-BIKE OWNERS



Source: eBikes.org

eBikes.org

BENEFITS OF E-BIKES

- Lower emission alternative to driving
 - Low-cost alternative to driving ([NPR, 2023](#))
 - Lower emissions than driving
- Increases access to active living and mobility
 - E-bikes can help older folks get and stay active ([Harvard Health, 2024](#))
 - E-bikes provide mobility for young people
 - E-bikes may unlock latent demand for cycling ([APBP, 2024](#))

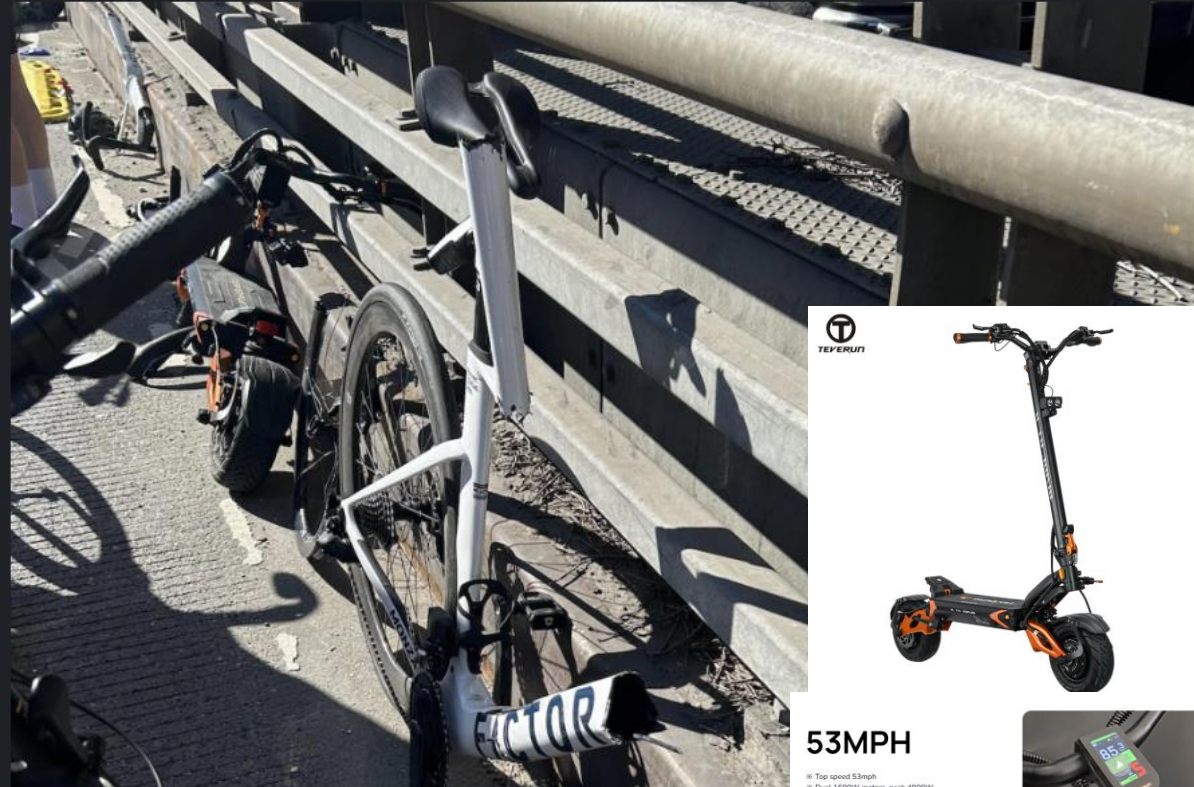
Two Dead After Illegal Scooter Rider And Cyclist Crash On Queensboro Bridge

Street safety advocates have been criticizing city officials for failing to fully grasp the dangers of e-motos and illegal stand-up scooters for years.



By **Sophia Lebowitz**

2:01 PM EDT on May 28, 2026



The scooter and the bike in the aftermath of the crash that killed two men on the Queensboro Bridge



53MPH

• Top speed 53mph
• Dual 1600W motors, peak 4000W
• Powerful & instant acceleration
• Stable & safe at high speed



Wisconsin officials warn parents about rising e-bike and e-scooter injuries

By: Meredith Hackler

Posted: Jun 24, 2026 5:01 PM CDT

E-VEHICLE INJURIES IN 2025 COMPARED TO 2022

- E-SCOOTER CRASHES HAVE INCREASED 260%
- E-BIKE CRASHES HAVE INCREASED 171%
- PEOPLE INJURED IN E-SCOOTER CRASHES HAVE INCREASED 240%
- PEOPLE INJURED IN E-BICYCLE CRASHES HAS INCREASED 171%

SOURCE: WISCONSIN DEPARTMENT OF TRANSPORTATION

58 NEWS
MILWAUKEE



NOW: Wisconsin officials warn parents about rising e-bike and e-scooter injuries



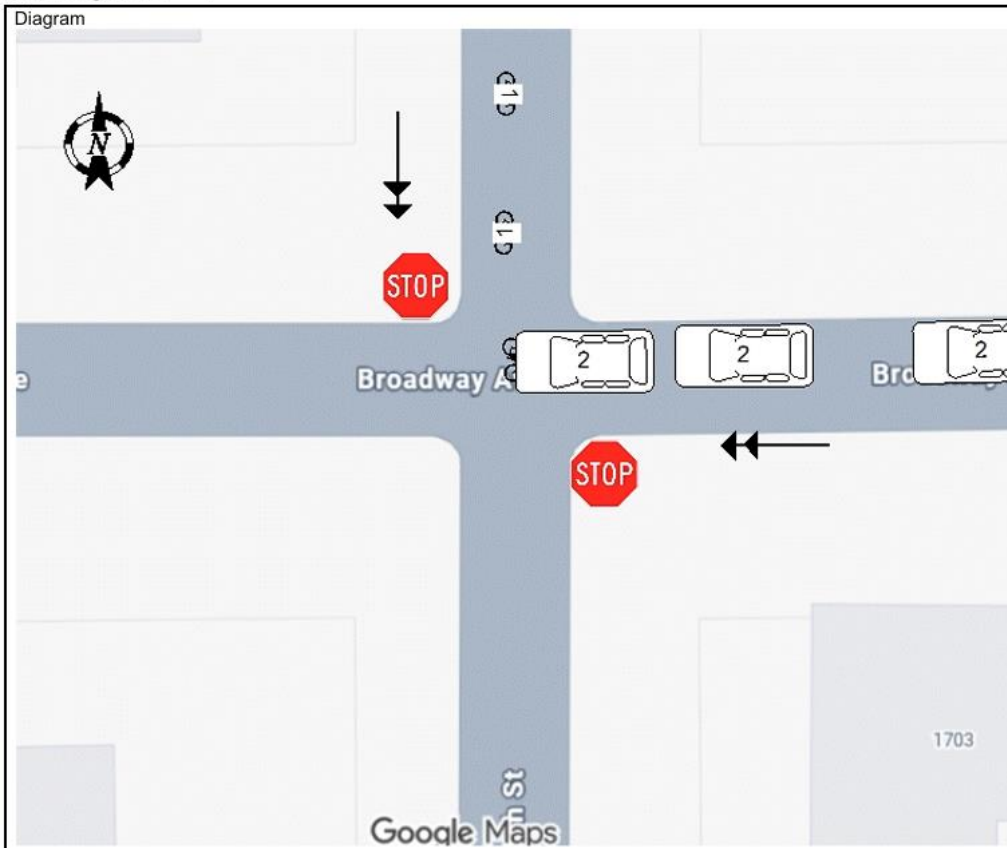
Source: CBS 58 News June 2026

SHEBOYGAN E-MOTO CRASH AND FATALITY

INFORMATION FROM TOPS LAB

Diagram:

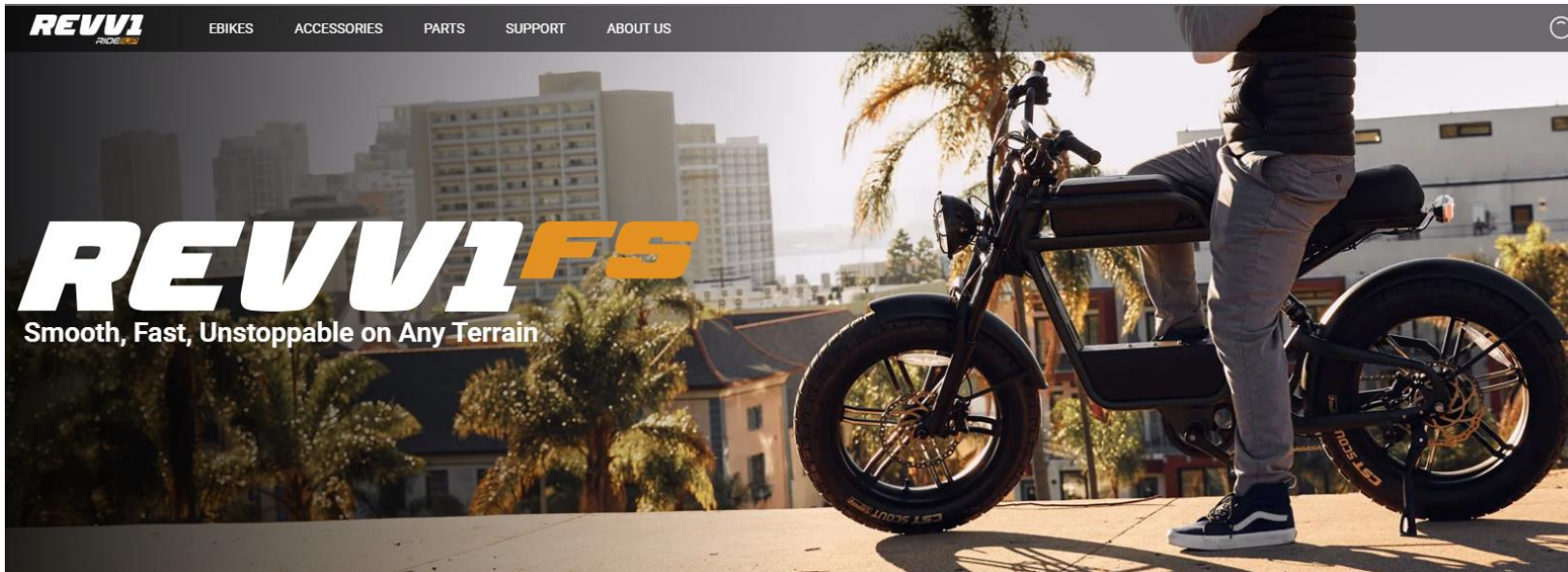
Description



Summary:

- Unit 1 was an e-moto with a motor over 3000 watts and 30 mph top speed.
- Unit 1 failed to stop at stop sign.
- Unit 2 did not have a stop sign and did not have enough time to react to Unit 1 entering the intersection when they collided.
- Operator of unit 1 was declared deceased at the hospital.

A BIG PART OF THE PROBLEM IS WITH “E-MOTOS” OR “OUT OF CLASS ELECTRIC VEHICLES”



What Is a Moped-style eBike?

“Typically, moped electric bikes have programming and motor capabilities that **allow for a higher top speed than class 3 ebike regulations allow**. This is more than 28 mph, but designed for private property and **technically not legal to ride on public roads at these speeds.** “

[Source: Revv1 FS Moped-Style Electric Bike | Ride1Up Ebikes](#)



Figure 1: The Safe System Approach (Image credit: Washington Traffic Safety Committee)

VISION ZERO

E-motos present major challenges to Vision Zero and Safe Systems Approach

- Safe Road Users
- Safe Vehicles
- Safe Speeds

Need for multiple levels of intervention needed

- Federal Law on consumer products vs. motor vehicles
- State Law on definitions, licensing and registration, safety equipment, OWI, and facilities
- Local Enforcement

FEDERAL AND STATE LAWS ARE SHAPING THE TYPES OF DEVICES WE ARE SEEING

FOCUS ON TWO THINGS:

- 1. VEHICLE TYPES**
- 2. OPERATING RULES AND BEHAVIORS**

IN FEDERAL LAW:

Under the Consumer Product Safety Act (15 U.S.C. §2085),

A low-speed electric bicycle (e-bike) is defined as a:

- Two- or three-wheeled vehicle with fully operable pedals
- An electric motor of less than 750 watts (1 horsepower)
- A maximum speed of 20 mph on a paved level surface when powered solely by the motor while ridden by a 170 pound operator

E-bikes that meet these definitions are subject to CPSC rules.

Source: Cornell Law 15 U.S. Code § 2085 - Low-speed electric bicycles

- 1. State Law is based on these Federal Rules**
- 2. Many devices are being produced outside of these definitions**

TYPES OF DEVICES WE ARE SEEING IN WISCONSIN

Bicycles

Electric bicycles

Electric scooters

Motor bicycles

Mopeds

Motorcycles

Off-road motorized vehicles

Electric play devices

BICYCLES

► “Bicycle” means every vehicle propelled by feet or hands acting upon pedals or cranks and having wheels any 2 of which are not less than 14 inches in diameter.



ELECTRIC BICYCLES

- “Electric bicycle” means a bicycle that is equipped with fully operative pedals for propulsion by human power and an electric motor of **750 watts or less** and that meets the requirements of any of the following classifications:
 - (a) **Class 1 electric bicycle** is an electric bicycle equipped with a motor that **provides assistance only when the rider is pedaling** and that ceases to provide assistance when the bicycle reaches the **speed of 20 miles per hour**.
 - (b) **Class 2 electric bicycle** is an electric bicycle that may be **powered solely by the motor** and is not capable of providing assistance when the bicycle reaches the **speed of 20 miles per hour**.
 - (c) **Class 3 electric bicycle** is an electric bicycle equipped with a motor that **provides assistance only when the rider is pedaling** and that ceases to provide assistance when the bicycle reaches **the speed of 28 miles per hour**.



MOTOR BICYCLES

- “Motor bicycle” means a bicycle to **which a power unit that is not an integral part of the vehicle** has been added to permit the vehicle to travel at a **speed of not more than 30 miles per hour** with a 150-pound rider on a dry, level, hard surface with no wind and having a seat for the operator. “Motor bicycle” does not include an electric bicycle.



MOPEDS

- “Moped” means any of the following motor vehicles capable of **speeds of not more than 30 miles per hour** with a 150-pound rider on a dry, level, hard surface with no wind, excluding a tractor, a power source as an integral part of the vehicle and a seat for the operator:
 - 1. A bicycle-type vehicle with fully operative pedals for propulsion by human power and an engine certified by the manufacturer at not more than 130 cubic centimeters or an equivalent power unit.
 - 2. A motorcycle with an automatic transmission and an engine certified by the manufacturer at not more than 50 cubic centimeters or an equivalent power unit.



MOTORCYCLES

- “Motorcycle” means a **motor vehicle originally manufactured with motive power, a seat or saddle requiring the rider to sit astride**, not more than 3 wheels in contact with the ground, **steering controlled by handlebars**, and **acceleration and braking controlled with handlebar and foot controls** and that is **capable of speeds in excess of 30 miles per hour**





- E-Scooter 340.01(15ps)
 - Less than 100 pounds
 - **Has handlebar**
 - Powered solely by electric motor and human power
 - **Maximum speed of 20 miles per hour**

“Play vehicle”:

(a) Means a coaster, skateboard, roller skates, sled, toboggan, unicycle or toy vehicle upon which a person may ride.

(b) Does not include in-line skates or electric scooters.

- [Wisconsin Statutes 340.01\(43m\)](#)

Play vehicles not to be used on roadway. No person riding upon any play vehicle may attach the same or himself or herself to any vehicle upon a roadway or go upon any roadway except while crossing a roadway at a crosswalk.

- [Wisconsin Statutes 346.78](#)



WIDE WORLD E-THINGS

- The following devices are being sold as “e-bikes” or “e-scooters” (ie. Consumer Products)
- No VIN for registration at DMV
- Not built to motor vehicle standards



AN
.S

ADVENTURE WITHOUT LIMITS

Power. Freedom. Everywhere.



TOP SPEED
34MPH



RANGE UP TO
75 MILES



PEAK MOTOR
2000W

SHOP NOW >



FREE SHIPPING



Ridstar Q20
72v,1500w



ASSOCIATION OF PEDESTRIAN
& BICYCLE PROFESSIONALS
Expertise for Active Transportation

60 MPH ELECTRIC DIRT BIKE



SURRON WHEELIE



THEY *LOOK* LIKE BIKES, BUT...



JackRabbit OG2 Pro
Max speed: 20 mph
No Pedals

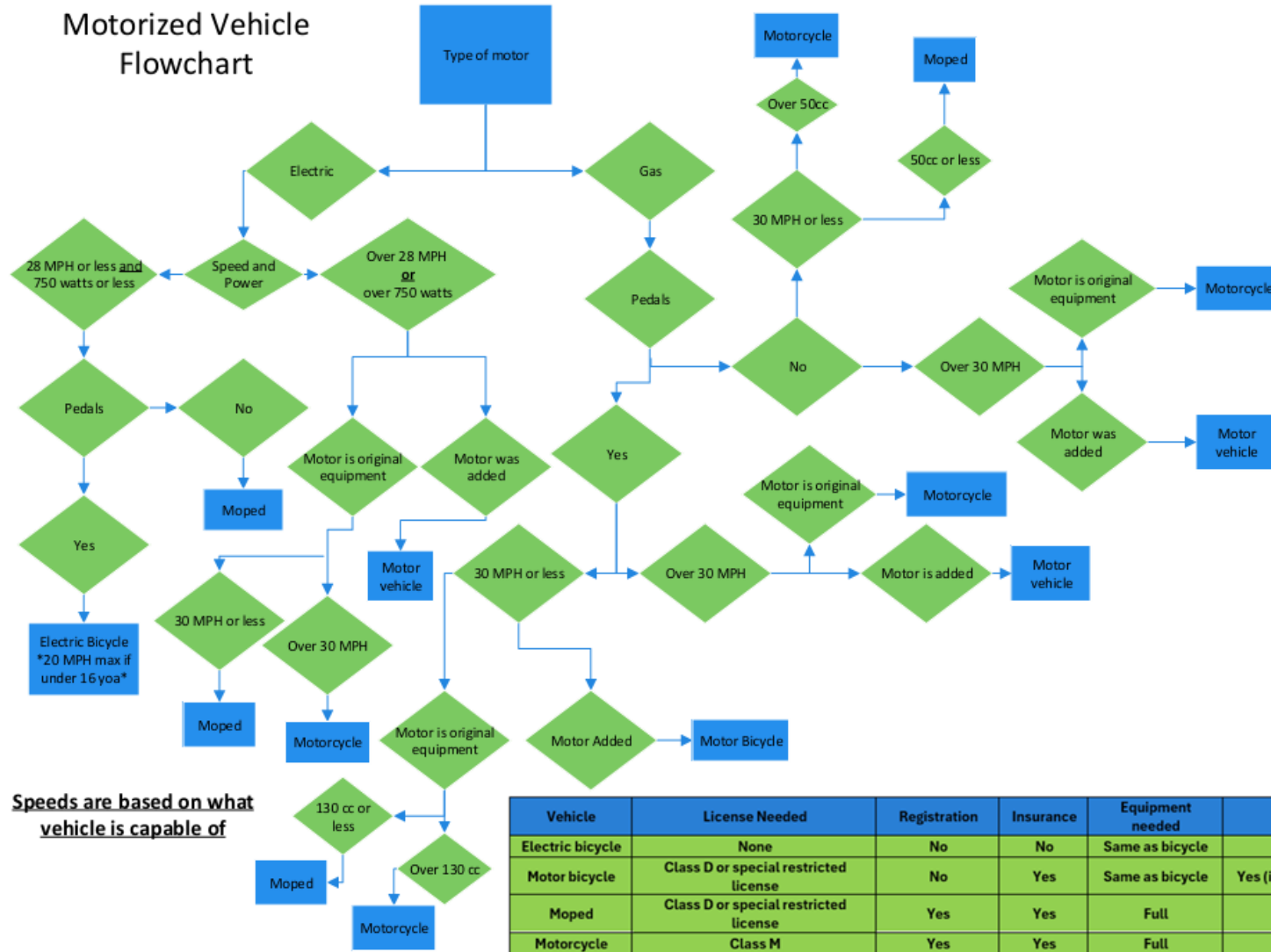


JackRabbit MG Doble (designed for two riders)
Max speed: 20 mph, 24 mph off-road mode
No Pedals

Are “out of class” by lack of pedals

FLOWCHART EXAMPLE

Motorized Vehicle
Flowchart





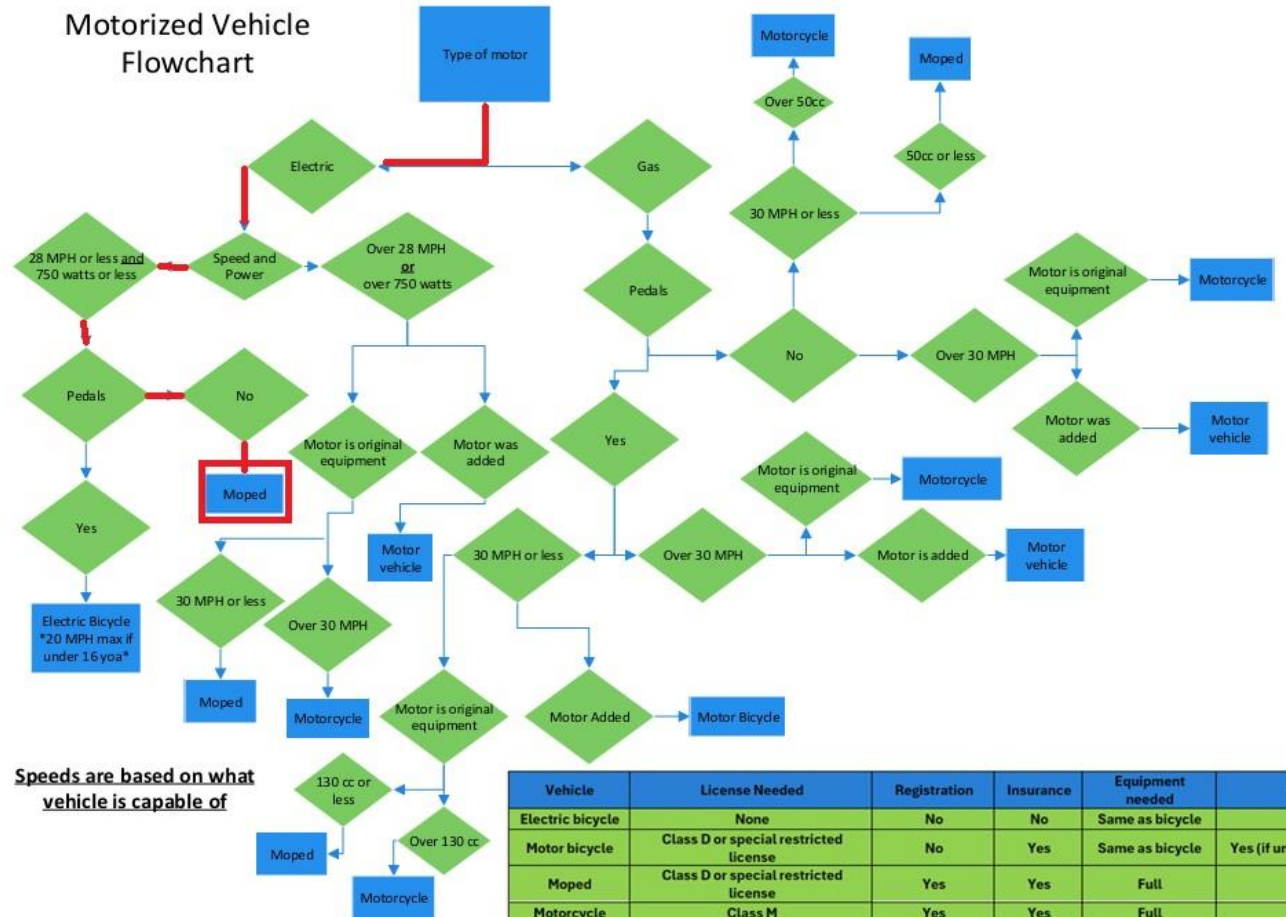
JackRabbit OG2 Pro
Max speed: 20 mph
No Pedals



JackRabbit MG Doble (designed for two riders)
Max speed: 20 mph, 24 mph off-road mode **No Pedals**



Motorized Vehicle Flowchart



THEY *LOOK* LIKE BIKES, BUT...



ENGWE M20 3.0
3300W Peak Output 120Nm Torque Moped-Style E-Bike



Freego Nova 3 Pro Mid-Drive All-Terrain Dirt eBike
Max speed: 55 mph

Are “out of class” by top speed, wattage, and lack of pedals



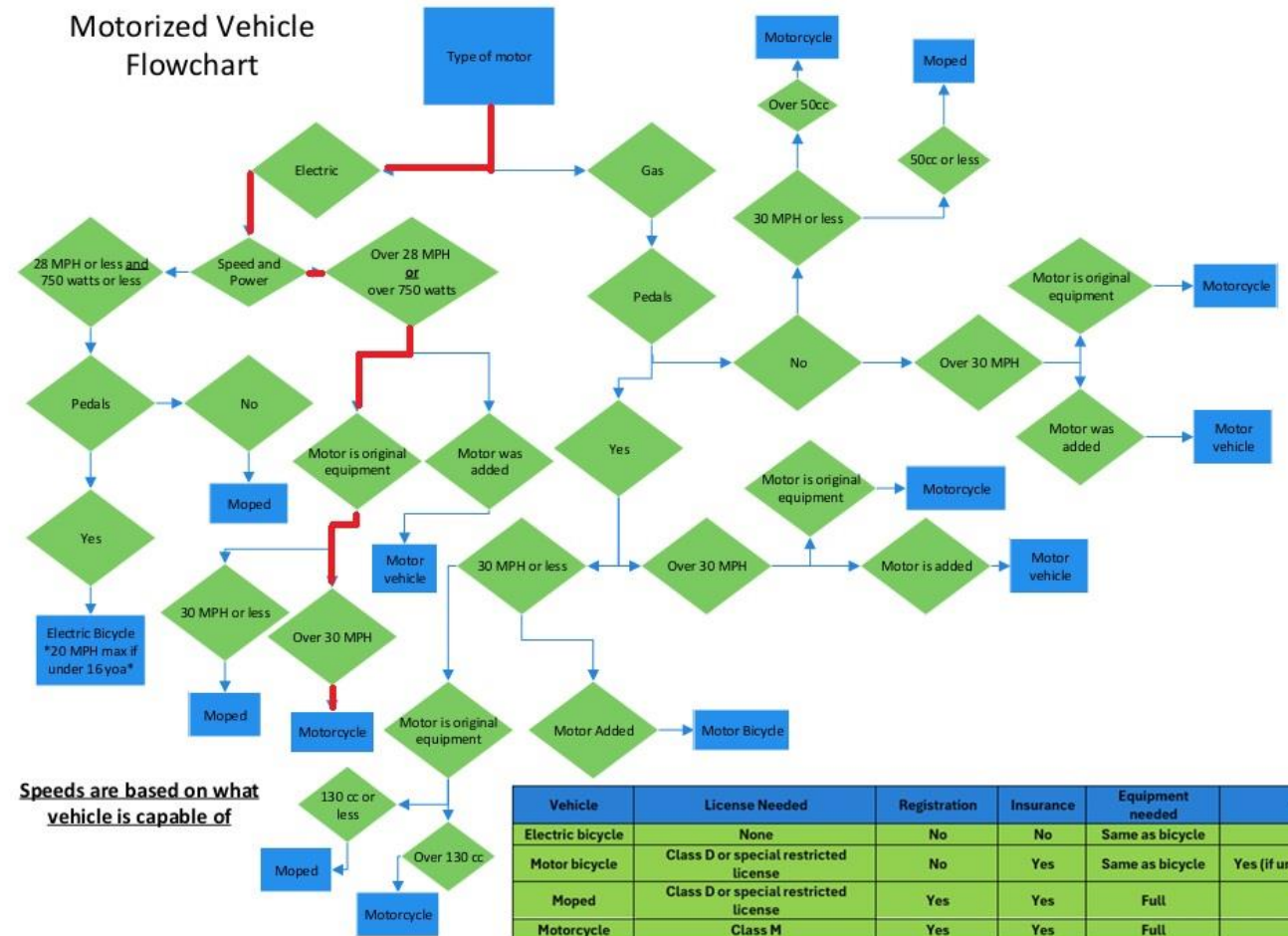
ENGWE M20 3.0
3300W Peak Output 120Nm Torque Moped-Style E-Bike
Max Speed: 40 mph



Freego Nova 3 Pro Mid-Drive All-Terrain Dirt eBike
Max speed: 55 mph No pedals



Motorized Vehicle Flowchart



THEY *LOOK* LIKE BIKES, BUT...



KOOZ HP120E Electric Motorcycle for Kids
Max speed: 10 mph



Terrosor GT 600 All-terrain Electric Motorcycle
Max speed: 28 mph

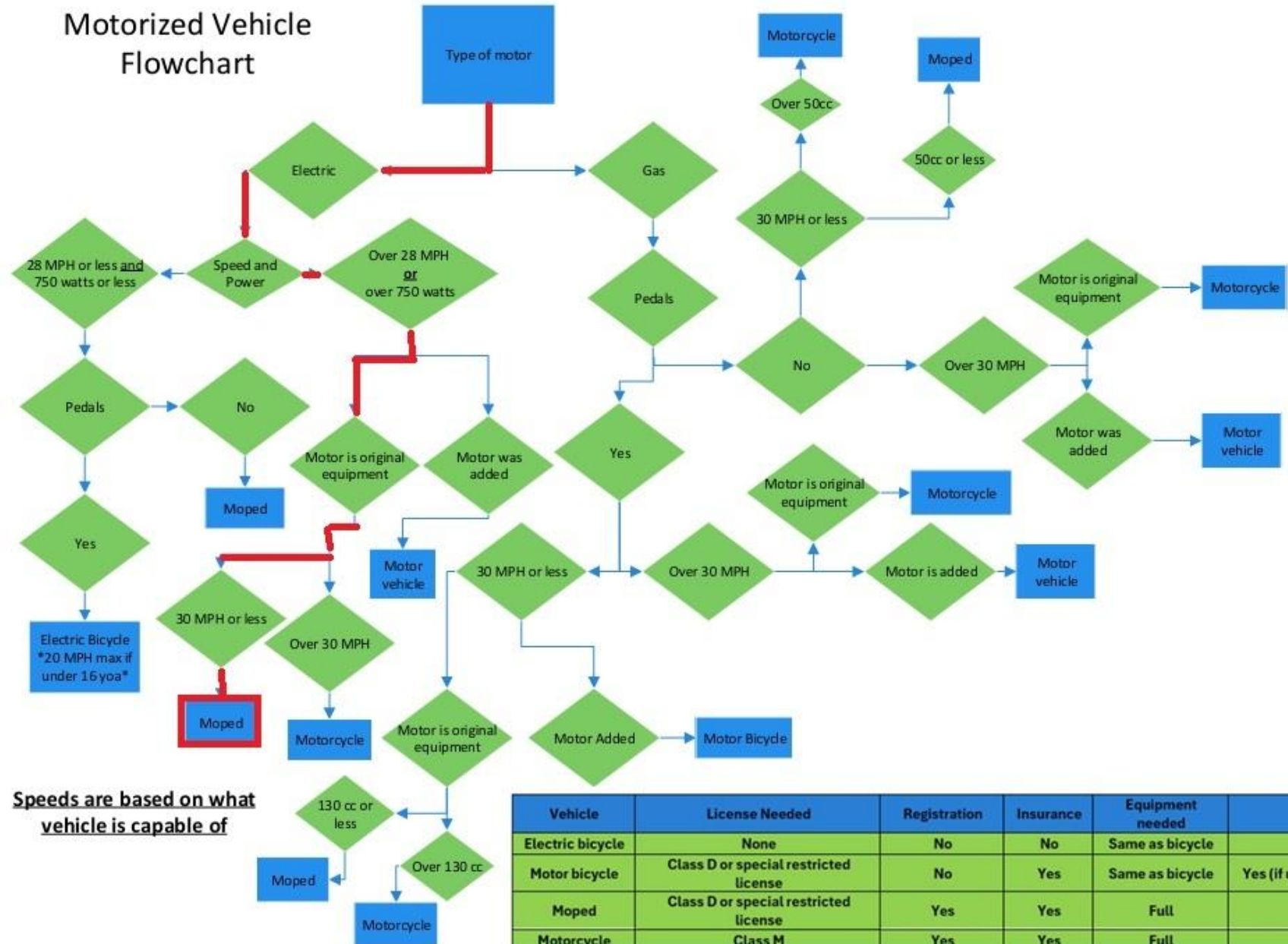
Are “out of class” by top speed, wattage, and lack of pedals



Terrosor GT 600 All-terrain **Electric Motorcycle**
Max speed: 28 mph
1200 W

- Electric motor
- 1200 W
- 28 MPH
- Pedals

Motorized Vehicle Flowchart



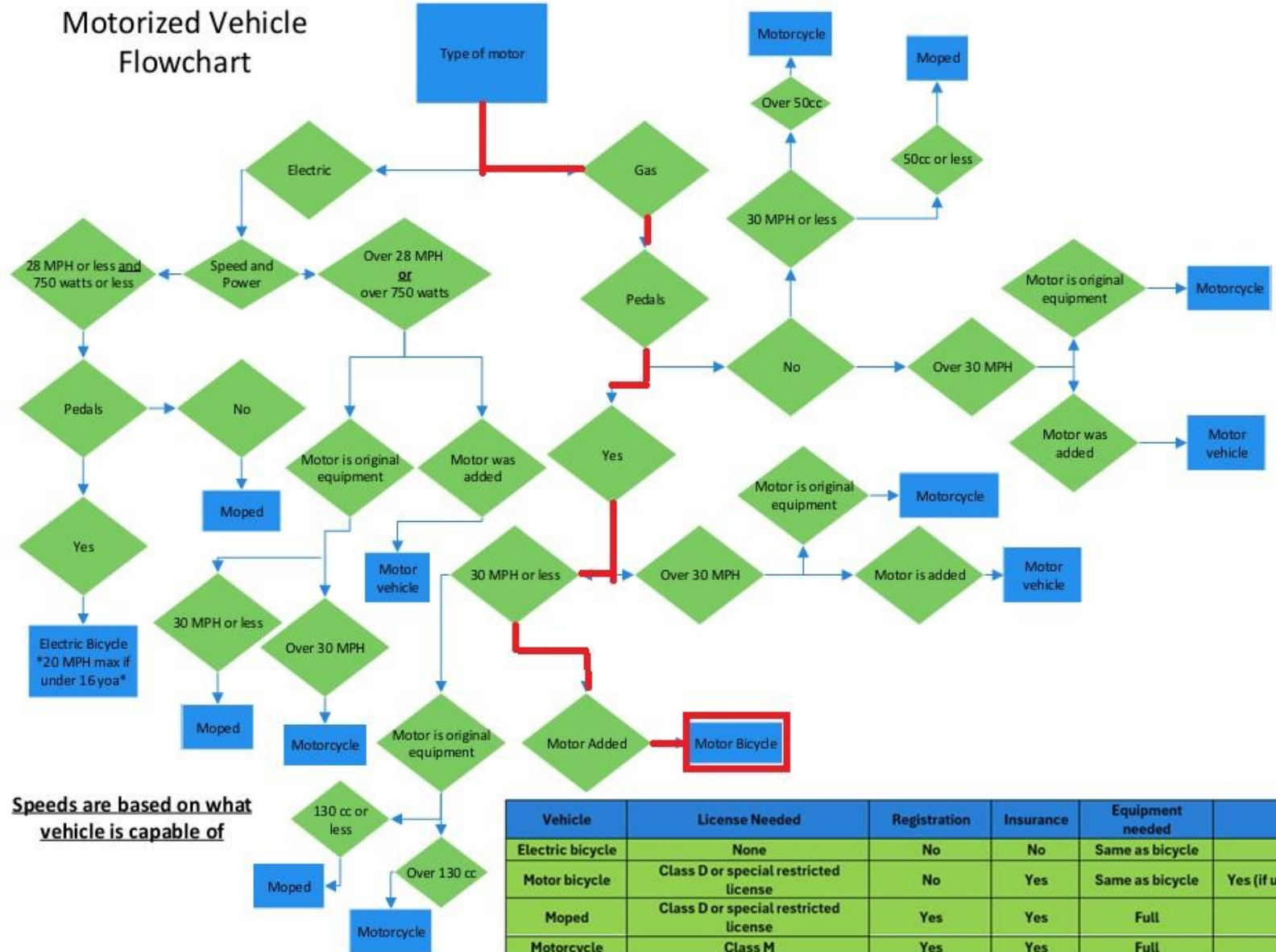
THEY *LOOK* LIKE BIKES, BUT...

- Gas motor added to bicycle
- Functioning pedals
- Max speed: 30 MPH





Motorized Vehicle Flowchart



- Gas motor added to bicycle
- Functioning pedals
- Max speed: 30 MPH

THEY *LOOK* LIKE BIKES, BUT...

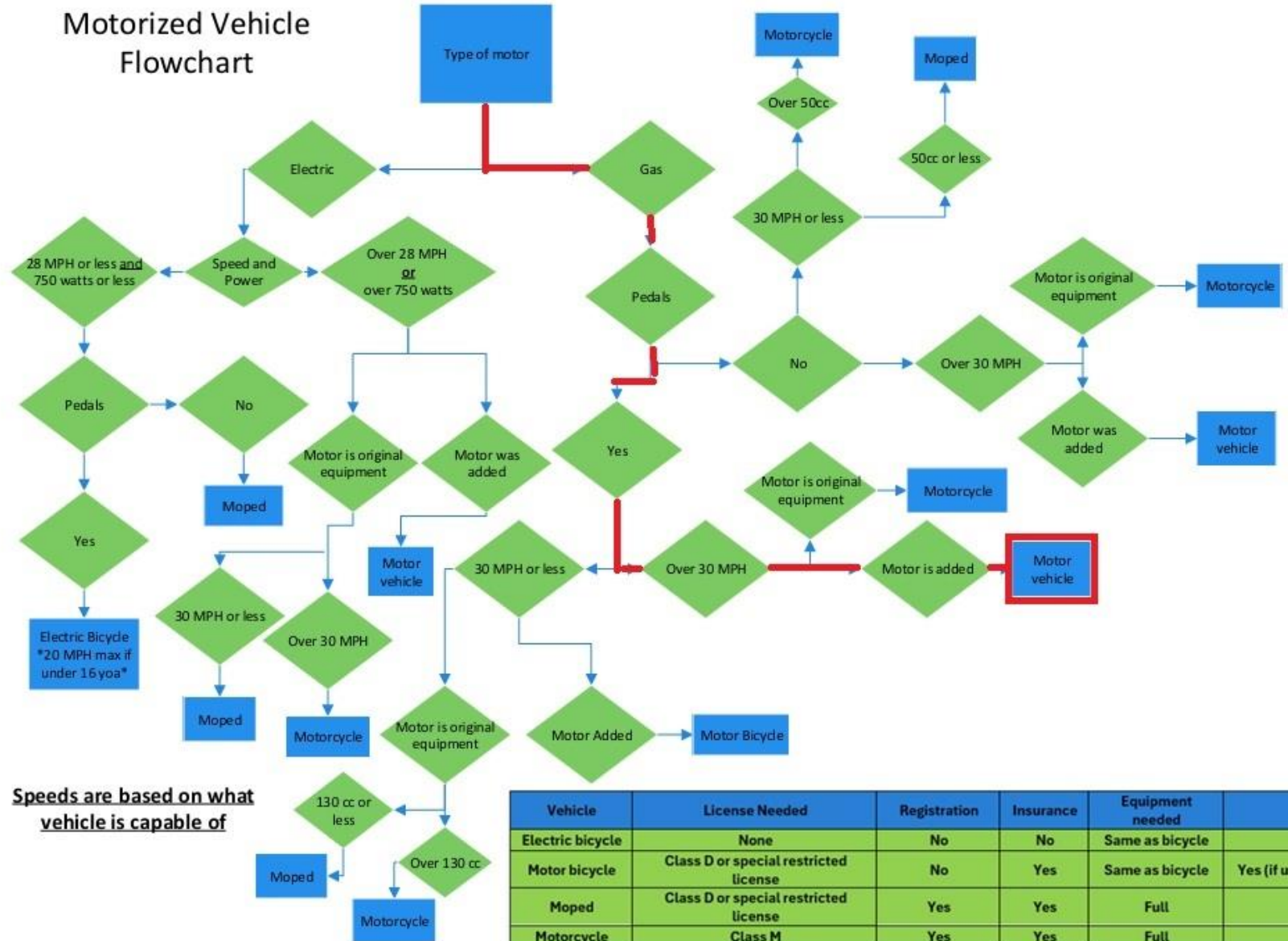
- Gas motor added to bicycle
- Functioning pedals
- Max speed: 75 MPH





- Gas motor added to bicycle
- Functioning pedals
- Max speed: 75 MPH

Motorized Vehicle Flowchart



E-SCOOTERS, AND SOMETHING ELSE ENTIRELY



Inmotion Air
Max speed: 19 mph

Legal e-scooter



Inmotion RS
Max speed: 68 mph

Out of class e-scooter by
top speed

E-SCOOTERS, AND SOMETHING ELSE ENTIRELY



OBARTER X7 Off-Road Electric Scooter
Max Speed: 56 mph



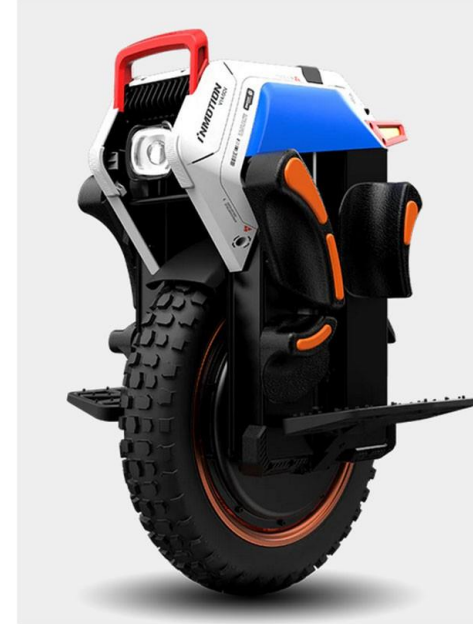
J15 Electric Scooter
Max speed: 32 mph

Out of class e-scooter by top speed and having a seat

E-UNICYCLES



InMotion V9
Max speed: 25 mph



InMotion V14Pro
Max speed: 50 mph

ONEWHEELS

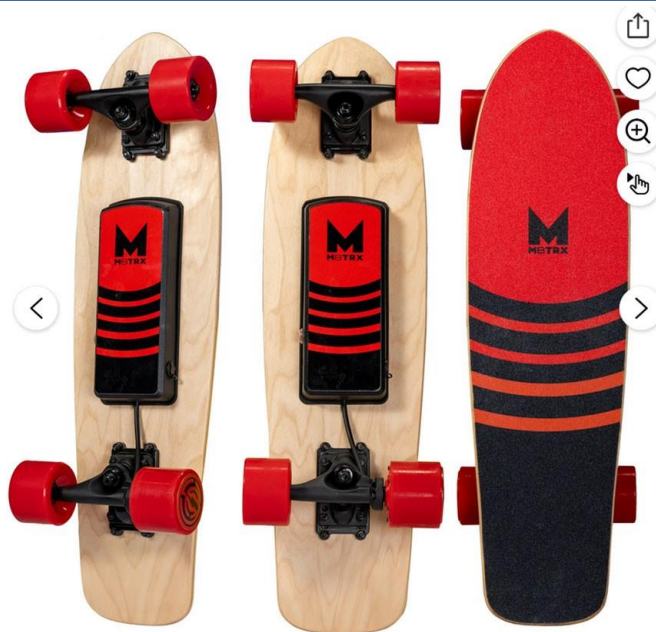


OneWheel Pint
Max speed: 16 mph



OneWheel Rally XL
Max speed: 25 mph

E-SKATEBOARDS



M8TRX EB100 Electric Skateboard
Max speed: 10 mph



Meepo Voyager X
Max speed: 34 mph

E-IN-LINE SKATES & ROLLER SKATES



Atmos Gear Electric Skates
Max speed: 15.5 mph



Wheelfeet 2 electric rollerskates
Max speed: 15 mph

SUMMARY TABLE 1

■ Device definitions - Chapter 340.01

Vehicle Class	Throttle	Speed	Power	License, Registration, Insurance
Class 1 E-Bike	No	≤ 20 MPH	≤ 750 Watts	No
Class 2 E-Bike	Yes	≤ 20 MPH	≤ 750 Watts	No
Class 3 E-Bike	No	≤ 28 MPH	≤ 750 Watts	16 years
Electric Scooter	Yes	≤ 20 MPH	No limit	No
Motor Bicycle	Yes	≤ 30 MPH	No limit	Operator's License Only
Moped	Yes	≤ 30 MPH	≤ 50cc (130cc with pedals)	Yes, Class D
Motorcycle	Yes	≥ 30 MPH	No limit	Yes, Class M

SUMMARY TABLE 2

Where to ride and what can be regulated locally

	Sidewalks	Bicycle lanes	Bicycle ways	Highways
Bikes	Yes (349.23)	Yes (349.23)	Yes (349.23)	Yes (349.23)
E-bikes	Yes (349.23)	Yes (349.23)	Yes (349.23)	Yes (349.23)
Motor Bicycles	Yes (349.23)	Yes (349.23)	Yes (349.23)	Yes (349.23)
Electric Scooters	Yes (346.94(18s))	Yes (346.94(18s))	Yes (346.94(18s))	Yes (346.94(18s))
Mopeds	No (346.94(1))	No (346.94(12))	No (346.94(12))	Yes
Motorcycles	No (346.94(1))	No (346.94(12))	No (346.94(12))	Yes

- See 346.02(4) regarding applicability of Chapter 346 to bicycle, electric bicycles, and motor bicycles

AUTHORITY TO REGULATE

- Bicycles and motor bicycles
 - 349.23
 - Roadways with speed limit of 25 or more
 - No on sidewalks unless local ordinance allows
 - Motor bicycle not allowed on bicycle ways
- Electric bicycles
 - 349.18(4)
 - May regulate on bikeways with the power unit in operation
 - Otherwise considered a bicycle; no state statute says e-bikes can be treated differently
- Electric scooters
 - 349.237
 - Roadways with speed limit of 25 or more
 - Yes on Sidewalks unless local ordinance prohibits
 - OK in bicycle ways

ENFORCEMENT



GREEN BAY APPROACH

- In most cases state law is sufficient for local action now.
 - Specific City ordinances for electric scooters
- Education
 - Community meetings
 - News interviews
 - Social media posts
- Enforcement
 - Warnings
 - Citations
 - Arrests

GREEN BAY APPROACH

- Safety-focused stops related to “e-motos”
 - Speeding
 - Reckless riding
 - Wheelies
 - Weaving in and out of traffic
 - Failing to stop for traffic control devices
 - Failing to yield for pedestrians, other bikes etc, and motor vehicles
 - Lack of safety equipment and dangerous behavior

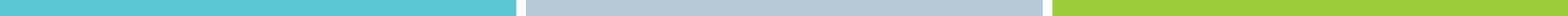


GREEN BAY APPROACH

- Operating without a license 343.05(3)(a)
 - Permitting unauthorized person to operate 343.45(1)
- No motorcycle license 343.05(3)(b)
- Unregistered vehicle 341.04(1)
- Equipment violations Chapters 347 and Trans 305
 - Parental responsibility for bicycles and play vehicles 346.77
- OWI 346.63
- Fleeing 346.04

SUN PRAIRIE APPROACH

- Relying on local ordinance for probable cause - 10.08.110 Unauthorized operation of motor vehicles on public or private property
 - Updating ordinance to add a section about e-motos and allow for a local citation
 - Not legal on roads unless licensed, registered, and insured
 - Never legal on bikeways, sidewalks, or paths
- In education phase, to notify youth their devices are not legal
- May need to escalate and give citations (\$30 citation plus \$120 cost = \$150)



BIG QUESTIONS ABOUT STATE LAW AND WHAT NEEDS TO CHANGE

Effort being led by Wisconsin Bike Fed,

APBP – Wisconsin Chapter,

APA – Wisconsin Chapter, and others

To give Wisconsin a fighting chance on this issue

VEHICLE DEFINITIONS AND LOCAL AUTHORITY TO REGULATE

- **Should e-motos stay in their current motor vehicle classes?**
 - High-speed e-devices (faster than 20 mph on throttle and 28 mph on pedal assist) live in a gray zone; legally are motor vehicles but are sold as consumer products
 - Wide-range of electric devices that are considered “play devices” are not well captured by E-bike, E-scooter, or Moped and Motorcycle definitions
- **How can we make local enforcement more consistent and easily enforceable?**
 - Need to right-size sidewalk rules and rights on the road for all e-devices including those defines as e-scooters, e-bikes, and “play devices”
 - State law says no on sidewalks for bikes/e-bikes yes for e-scooters; locals can do otherwise
 - “Play devices” are not legal in street
 - Need to clarify local authority to set speed limits for paths, sidewalks etc.
 - Speed Limits for roadways are based on existing state statutes; no such statutes for speed limits on paths or sidewalks
 - Make clear that high speed E-devices/E-motos cannot be legally operated on bikeways, sidewalks, or paths
 - Clear Trail Access Policies and overall signage of rules within jurisdictions
 - Patchwork of rules become unworkable for riders in urban areas.
 - Madison-area has multiple jurisdictions overseeing different sections of the same trail Capital City Trail.

LICENSING, REGISTRATION, AND INSURANCE

- Requirements for some combination of all three for motor bicycles, mopeds, motorcycles, and all other motor vehicles
 - Registration is not possible under existing state law due to e-motos lacking a VIN
 - Insurance products do not currently exist for e-motos
- Should E-motos be considered something other than the motor vehicle class they current reside in?
- Should they stay illegal to operate on public property due to their inability to be registered?
- Should WI pursue a pathway to register them as motor vehicles with something other than a VIN?

CONSUMER PROTECTIONS

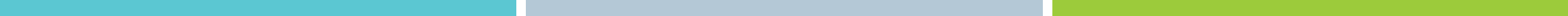
- False advertising rules for products as “e-bikes” and “e-scooters” when they are in fact motor vehicles.
 - Consider strong fines to be levied.
- Requirements for sellers to inform purchasers of the legal requirements of using e-motos in Wisconsin
 - Consider creating a database of known e-bikes and e-scooters; e-motos

OWI AND CRASH REPORTING

- OWI
 - Consider applying OWI statutes to all devices that are throttle assist Class 2 e-bikes, e-scooters, electric play devices
- Crash reporting standards
 - Currently no standard reporting system for Police and EMS when crashes occur between bicycles, scooters, and pedestrians and no other motor vehicle.
 - Need to create standards about reporting make and model for all e-devices involved in crashes.

BATTERY SAFETY STANDARDS AND TRADE-INS

- Battery Safety Standards
- Trade-in illegal e-motos?
 - If no pathway for registration, is there a benefit in doing trade-ins to get these off the street?
- Bike safety education
 - As e-devices become more ubiquitous, pre-drivers really need to be learning the rules of the road. More education is needed.



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