DESCENDING TURNS

Electric mountain bicycles could negatively affect turns in the descending direction due to the increased mass of the added motor and battery. Most mountain bicycles used by enthusiasts weigh less than 30 pounds but electric mountain bicycles can weigh up to 50 pounds. This could require more braking, which, if executed improperly, can lead to skidding and rutting in the approaches to turns.

Using the trail alignment to slow users, rather than having a rider rely on braking, will reduce braking forces on the soil. When possible, armoring the entrance to the turn will result in a tread that can withstand considerable use.
DESCENDING TURNS

Research into the effects of electric mountain bicycles on trails indicates that they impact descending turns differently than mountain bicycles. In these instances, proper design, construction, and maintenance are critical.

Using less steep grades ahead of a turn will decrease the momentum of a rider, particularly when a short uphill grade reversal is located immediately before the turn. Typically, grades in excess of even 7% will force riders to brake hard unless the trail has already slowed them down.

Turns should flow properly given the wheelbase of a bicycle and the assumed speed: shorter, tighter turns are acceptable on advanced trails or where overall speeds are low, but wider, softer turns should be implemented on trails that see regular use by less-skilled riders.

Rock armoring can create a durable, long-lasting tread, especially at the entrances to turns. Smooth rock armoring can be used for beginner and intermediate trails, and textured rock armoring can be used on advanced and expert trails. The latter option also slows riders because of the jarring effect of entering a rock garden without proper control.

These are standard techniques for mountain bicycle trail construction but their proper implementation is even more important when sharing the trail with electric mountain bicycles.