

5. Chainstay

Make a line from center of bb to wheel center. Make it as long as you want your chainstay to be. I'm a long-chainstay type, so this one here is 11.5cm (I didn't quite line up the ruler perfectly for the photo, sorry). And remember, this is quarter scale, so that 11.5 really means 45cm.

Make yours whatever, but keep in mind that longer chainstays are more chain friendly, and put the rear hub further back, so in theory (at least) you won't be sitting as on top of it when you smack a bump. Big guys get rooked more than small fries do in this area, though.

Small bikes especially need long chainstays to compensate for the inherent tippiness of the smaller frame. Often the big-box designers proportioned the chainstays and make smaller on small frames. I used to do that (but not as much as some). No mas. The madness halted more than a decade ago!

Whatever you get here is multiplied by 4. Multiplying by 4 also multiplies errors by four, but still, there's nothing wrong with a quarter scale drawing at this stage. Shoot for accuracy, and if you want to full-scale it, or double-scale it later, go right on ahead!

