I made a rotary encoder using an IR LED and diode shining through a hole in the regular (non-pulley) gear meshed with the motor. There are 6 large holes and 12 small holes in this gear. This gear is coupled to all the wheels through pulleys, the gear ratios are as follows: 20T gear attached to the encoder gear going to a 37T gear attached to the wheels. The math for the rotary encoder pulses to mm is therefore (assuming single trigger, rising OR falling edge, encoder readout):

I measured wheel diameter to be between 62 and 63mm, varying due to tire compression and measurement error. This number does not have to be perfect, so I just did a quick test (see calibration excel files) where I measured the distance it actually went (with a measuring tape), and used the total pulse count to establish a wheel diameter of approximately 62.4mm.

The laser-cut mounting plate is held on the 4 poles (intended for mounting a canopy/hood). The distances between these poles can be extracted from the Solidworks file. If this becomes inaccessible (Solidworks license ran out?), there is also a screenshot with the most important dimensions. I used the Jeston nano dev. board (v3?) mounting hole dimensions: 58x86mm.