

4-2. A crank device is used to lift a block of 10 kg. If gear A has a radius $r_A = 0.1$ m and gear B has a radius $r_B = 0.5$ m, find how much work is required to rotate the crank five full revolutions.

The weight is wrapped around a spool of radius $r_s \sim N(0.3, 0.01^2)$ m which is connected to gear B.

B. Solution: $U \sim N(184.91, 6.16^2)$ J

