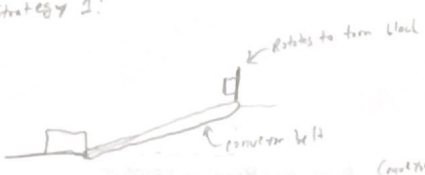
Conveyor Belt:
Strategy 1:



Power Equations

$d = \sqrt{1^2+2^2} = \sqrt{5}\,m$

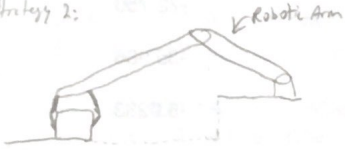
$v = \frac{d}{t} = \frac{\sqrt{5}\,m}{50\,s} = 0.0447\,m/s$

$F = mg\sin\theta = 10 \cdot \frac{1}{\sqrt{5}} \approx 4.5\,N$

Conveyor: $P = Fv = 0.0447\,m/s \cdot 4.5\,N = 0.20\,W$

Turner: $P = \tau\omega = Fr\omega = 4N \cdot .25m \cdot \pi\,rad/s = 3.14\,W$

Robotic Arm
Strategy 2:



Power Equations

$P = Fr\omega = 10N \cdot .3m \cdot \frac{\pi}{2}\,rad/s = 4.7W$

Drone:
Strategy 3:

Power Equation

For a 1kg drone:

$P = Fv = 0.0447\,m/s \cdot 20N = 0.894\,W$