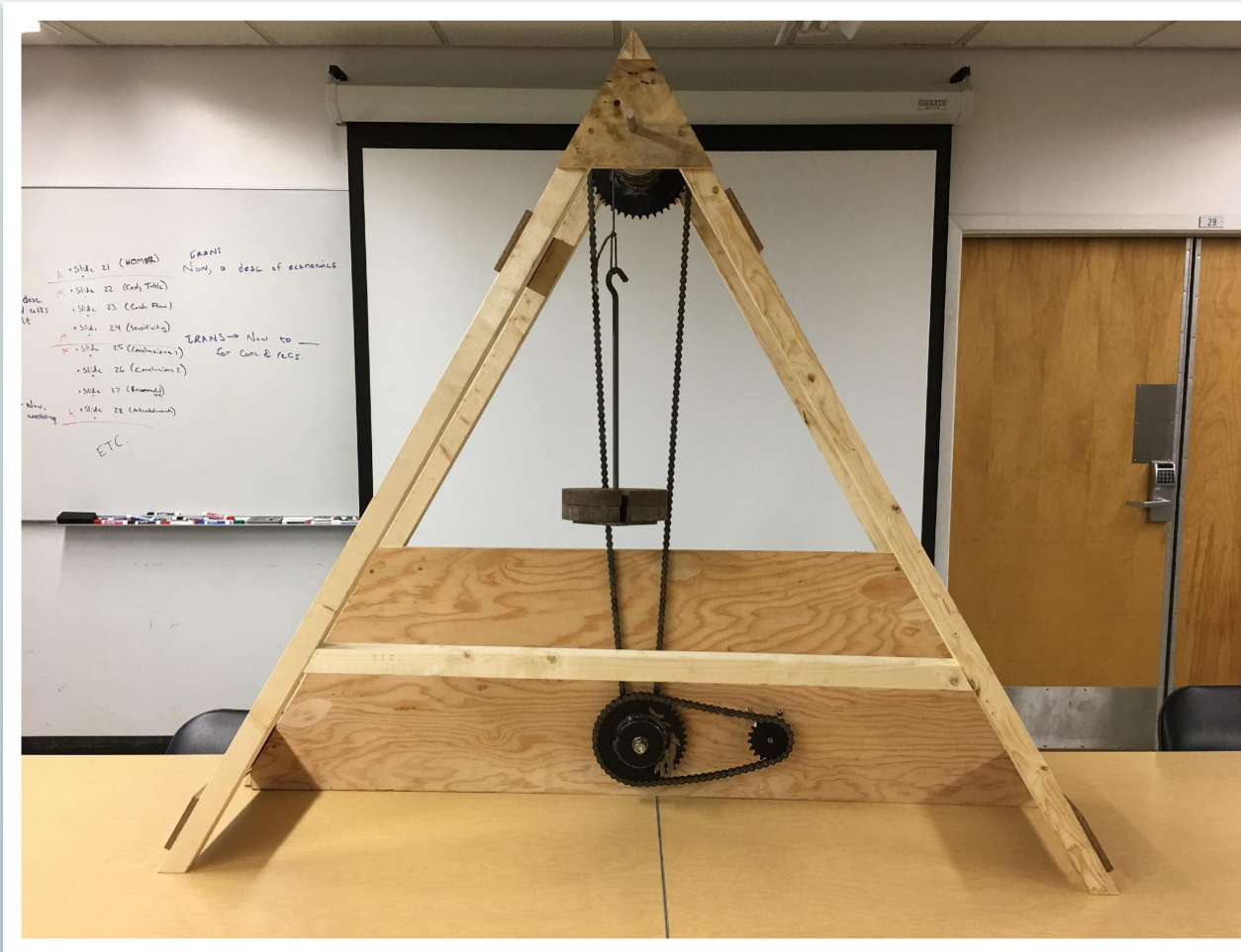
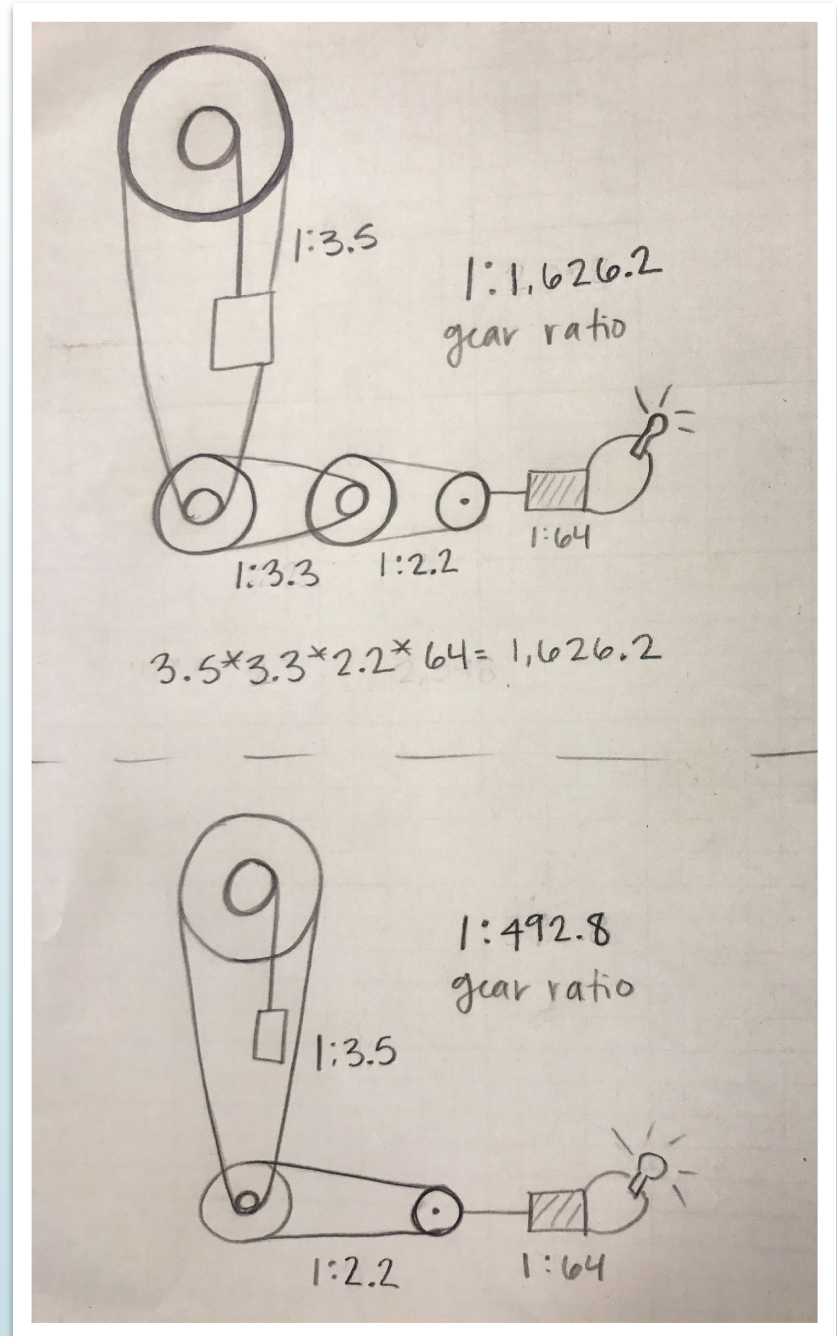
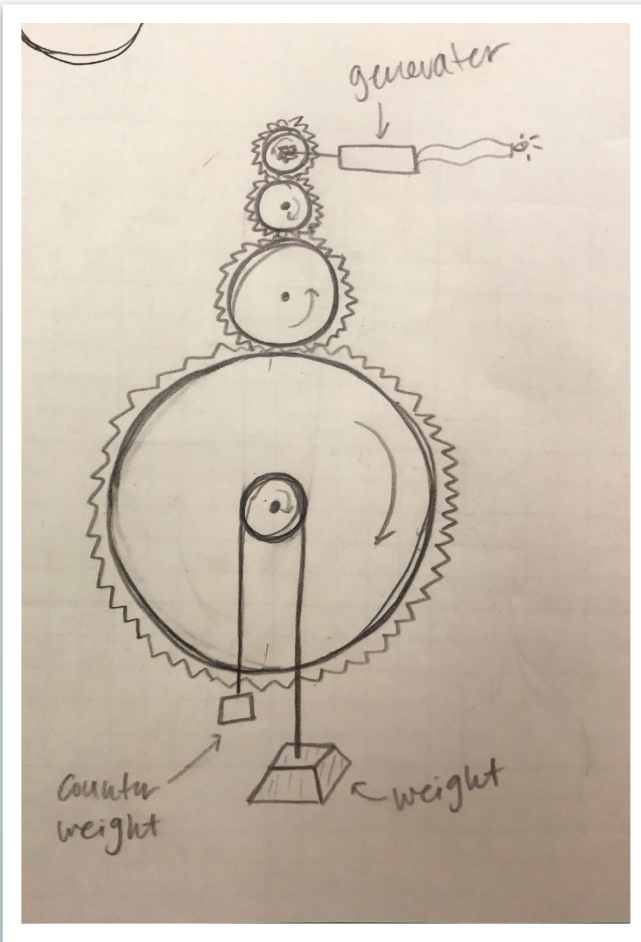


Gravity Powered Light

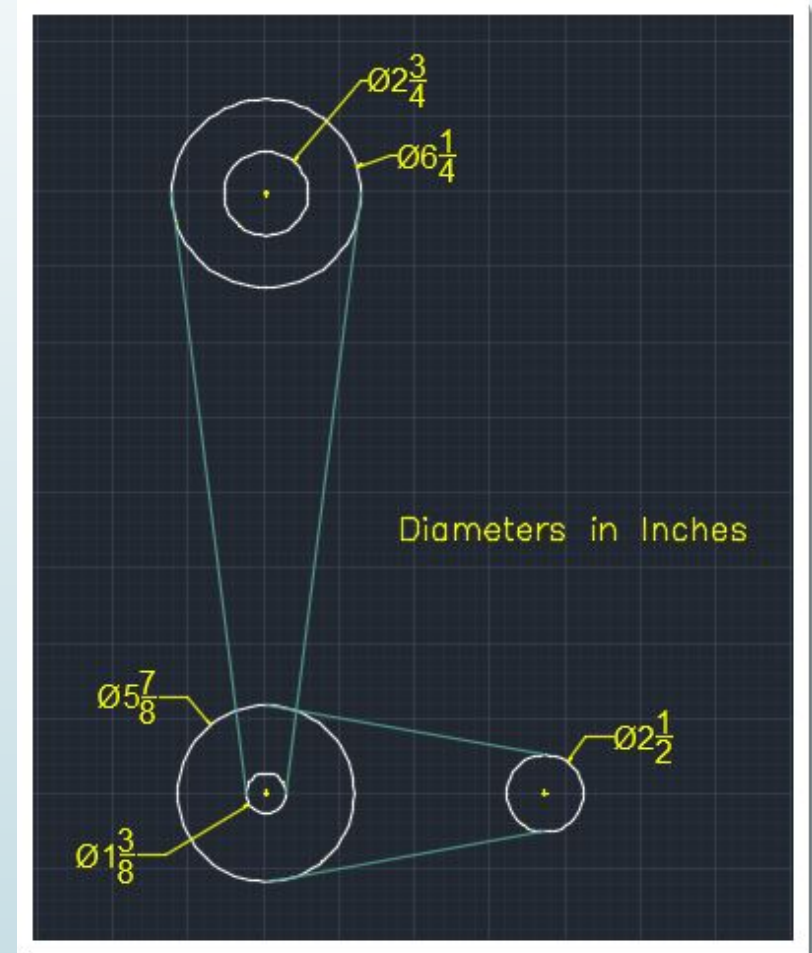
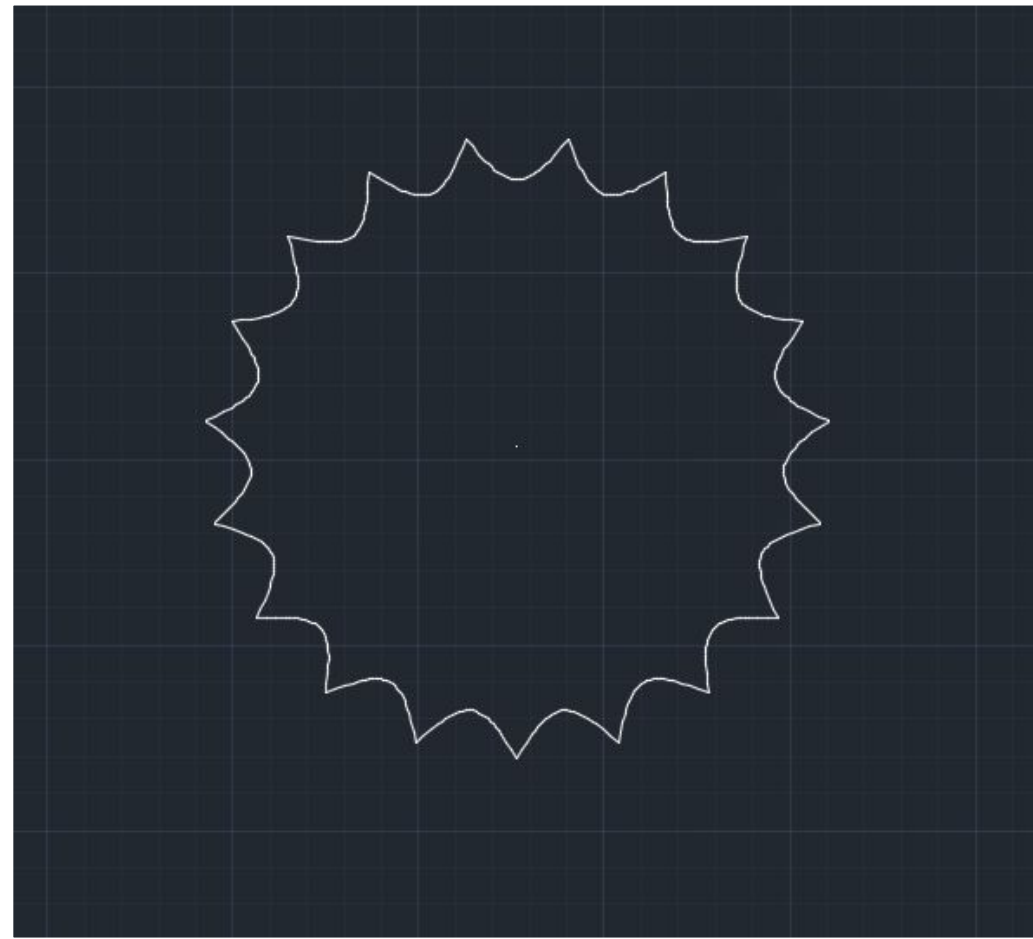
Casey Peterson, Melissa Savage, Dylan Kinser, Karsten Hayes
Engineering Mechanics : Dynamics
Humboldt State University



Initial Calculations



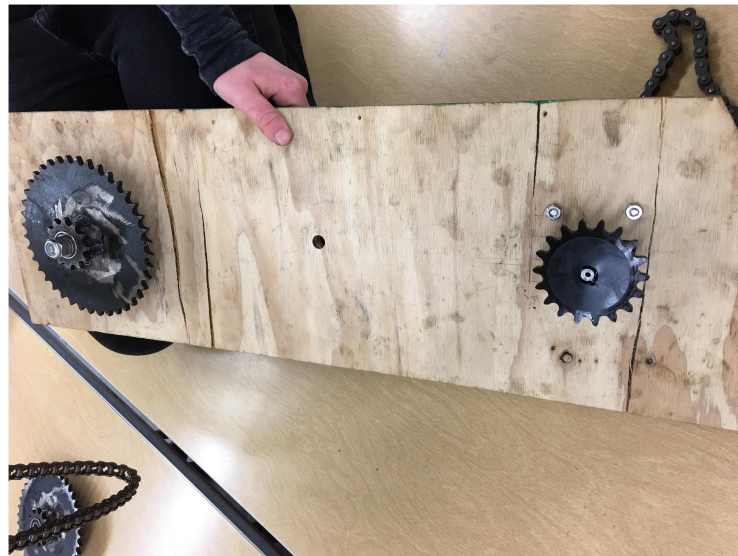
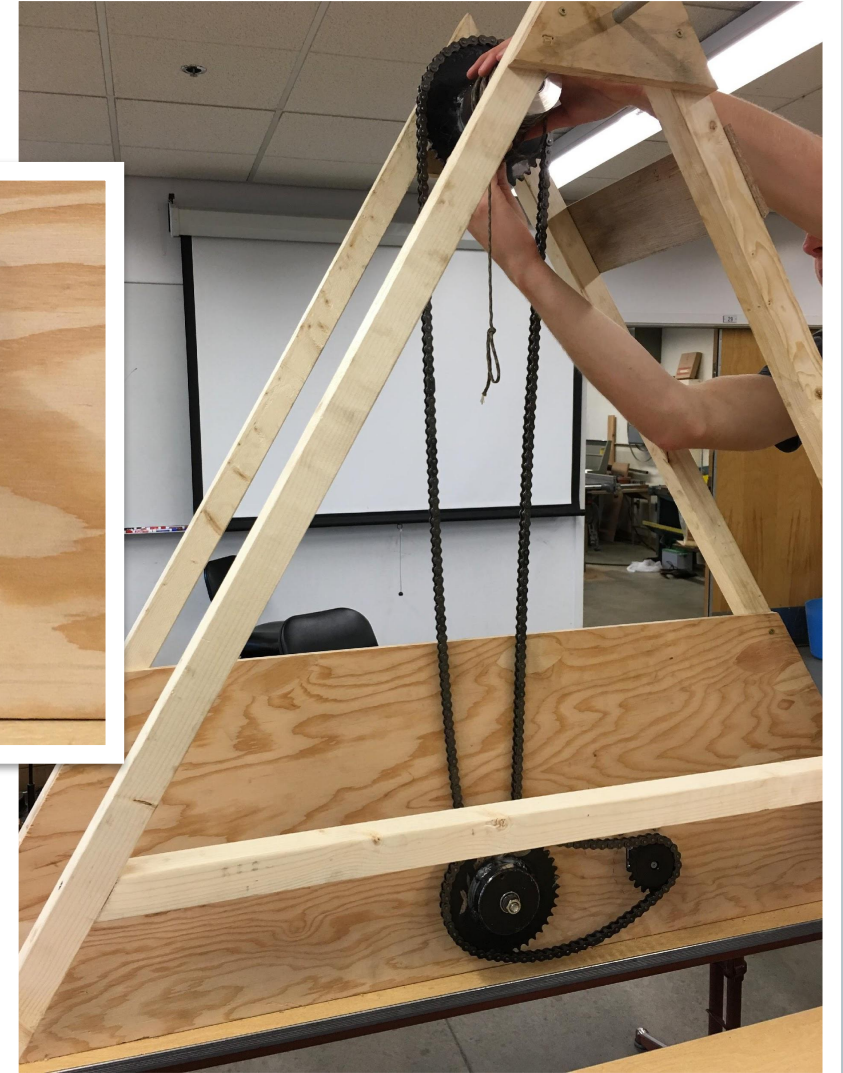
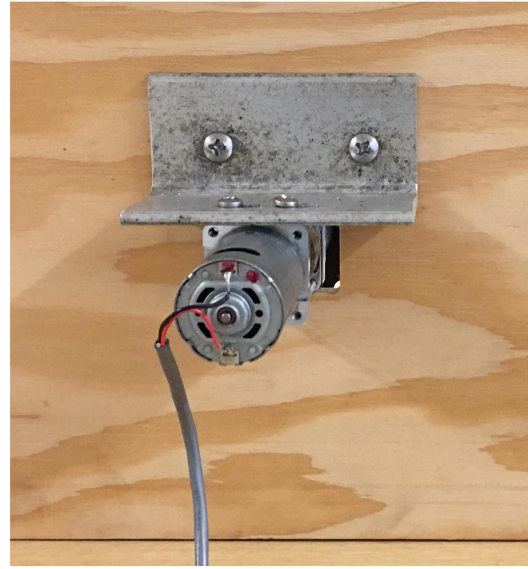
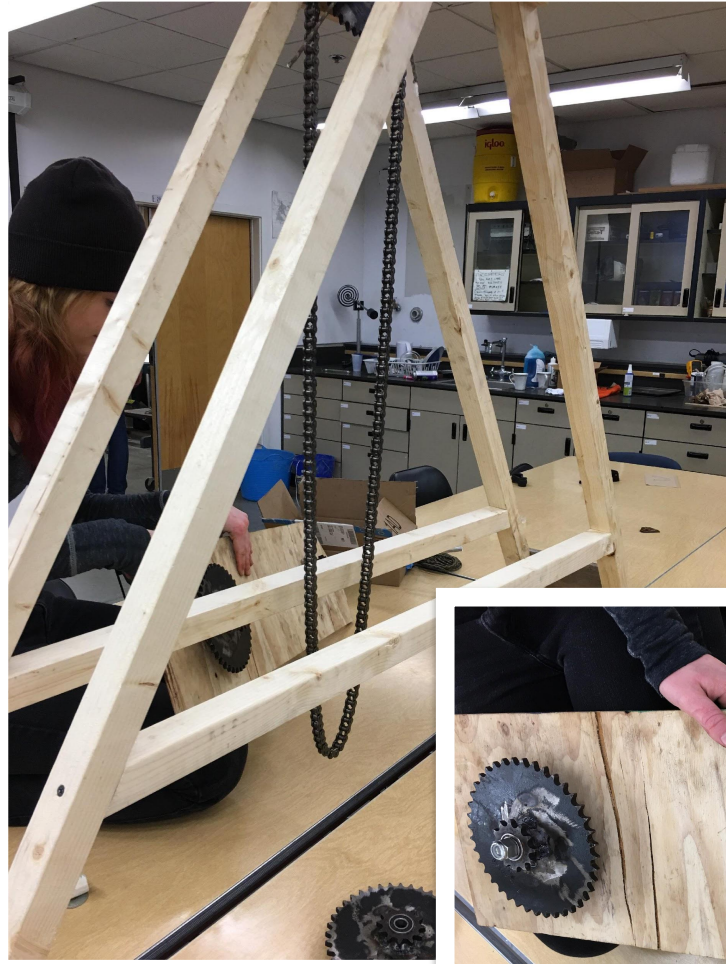
AutoCAD Drawings



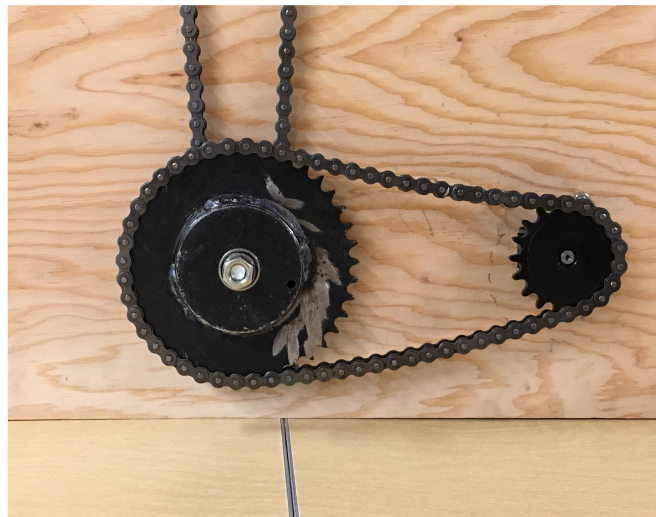
Costs

Item	Location	Cost
Various gears	Arcata Scrap and Salvage	\$9.00
10' Size 40 roller chain (x2)	Amazon.com	\$44.68
2"x2"x8' Lumber (x4)	The Mill Yard	\$12.25
Size 40 master link	Ace Hardware	\$1.90
1/2" Bolt (x3)	Ace Hardware	\$5.07
TOTAL COST		\$72.90

Building Process



Final Product



Final Calculations

Initial rotation rate	7.4 RPM
Final/output rotation rate	3,788.8 RPM
Weight	27.65 lbs
Time from 7 feet	73 seconds
Height needed to fall for 2 min	11.4 feet
Voltage	1.9 volts
Amperage	0.55 amps
Power	1.05 watts