

### System Design Combinations

Options	Solar Collector	Engine	Drive Mechanism	Generator	Battery
A (Datum)	Dish	Beta	Bowtie	DC	Lithium-Ion
B	Dish	Beta	Rhombic	DC	Lithium-Ion
C	Dish	Beta	Rhombic	Stepper	Lithium-Ion
D	Dish	Beta	Bowtie	Stepper	Lithium-Ion
E	Dish	Beta	Rhombic	Magnet/Flywheel	Lithium-Ion
F	Dish	Beta	Bowtie	Magnet/Flywheel	Lithium-Ion
G	Dish	Beta	Rhombic	DC	Alkaline
H	Dish	Beta	Bowtie	DC	Alkaline
I	Dish	Beta	Rhombic	Stepper	Alkaline
J	Dish	Beta	Bowtie	Stepper	Alkaline
K	Dish	Beta	Rhombic	Magnet/Flywheel	Alkaline
L	Dish	Beta	Bowtie	Magnet/Flywheel	Alkaline
M	Dish	Gamma	Rhombic	DC	Lithium-Ion
N	Dish	Gamma	Bowtie	DC	Alkaline
O	Dish	Gamma	Rhombic	Stepper	Lithium-Ion
P	Dish	Gamma	Bowtie	Stepper	Alkaline
Q	Trough	Gamma	Rhombic	DC	Lithium-Ion
R	Trough	Gamma	Rhombic	AC	Alkaline
S	Trough	Gamma	Symmetric	Stepper	Lead-Acid
T	System Receiver	Alpha	Symmetric	AC	Lead-Acid

## Project 12471: Pugh Analysis

	Concepts							
	A	B	T	Q	E	R	L	K
	Datum							
<b>Weight</b>		-	-	-	S	-	+	+
<b>Energy Efficiency (Solar/Generator)</b>		S	-	-	-	-	S	S
Mechanical Simplicity		S	-	+	S	+	-	-
Mechanical Losses		-	S	-	-	-	S	-
Electrical Simplicity		S	-	S	+	+	S	S
Mechanical Durability (life)		+	-	+	S	+	-	+
Electrical Durability (life)		S	+	S	S	S	-	-
Portability		S	-	S	S	S	S	S
Vibration		+	-	+	-	+	S	+
<b>Power Output (Engine Type)</b>		S	-	-	S	-	S	S
Cost		S	-	-	+	-	-	-
Sum + 's		2	1	3	2	4	1	3
Sum S's		7	1	3	6	2	6	4
Sum -'s		2	9	5	3	5	4	4
Net Score	0	0	-8	-2	-1	-1	-3	-1
Rank	1	2	8	6	3	5	7	4
Continue?	yes							