

CONCEPT SELECTION



SOLAR-POWERED

PROS

- Easy to use
- Requires little to no effort
- May power other devices as well
- Will charge a battery for later use
- Will make use of off-the-shelf components

CONS

- Unreliable
- Very likely to be stolen
- Will require theft-proofing
- No night time use
- One large single investment
- Issues w/battery include weight, shipping and hazardousness?



SOLENOID/SPRING POWERED

PROS

- Fun to use
- Smaller envelope (easier to ship)
- Fewer parts
- Some off-the-shelf components
- Several use scenarios

CONS

- Difficult to perform engineering analysis.
- Power input is inconsistent
- Will require multiple solenoids
- Many unknowns
- Complicated parts choice



BICYCLE POWERED

PROS

- More efficient (using legs versus arms)
- Parts will be easy to obtain
- Makes use of current system parts
- Will make use of OTS components
- Easier to maintain power (duration of time)
- Efficiency (power in almost equal to power out)

CONS

- Heaviest of all concepts.
- Large envelope (higher shipping cost)
- Produces more power than needed (mitigation plan must be put in place)

SIGNATURE

DATE

Continued to page

DISCLOSED TO AND UNDERSTOOD BY

DATE

10/10/13

PROPRIETARY INFORMATION