Network improvement Communities: Solar Sign Spinner Update

From:
To:

Date: Sunday, March 21, 2021, 06:01 AM PDT

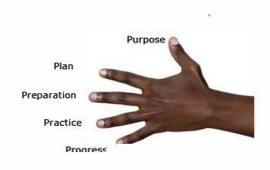
Hi Everyone,

As part of the <u>networked improvement communities proposed by the Carnegie</u> Foundation, I am sharing the status of the solar sign spinner with the Engineering and Art community.

The solar sign spinner started as solid modeling class project while I was a visiting drafting professor at College in 2018.

You can see how the design has evolved over the last two years by using the 5 P's of Progress below:

Five P's of Progress in Engineering



Purpose Thumb is strongest finger What Is your main objective?

Plan

Index finger points to direction Make plans to point to objectives

Preparation

Middle is longest finger
Prep takes longest time
Procure: Gather resources

Prototype: Picture while pretending progress towards purpose

Partition duties

Practice

Ring finger is similar length as Index Practice your planned activities

Progress

Little finger is smallest

Progress happens little by little, not by leaps and bounds

I have another networked improvement community opportunity at Honeywell Aerospace that I will introduce later.

Jerry

First Prototype:

http://laserpositioningsystem.com/Solar Sign Spinner old.mp4

Revised Prototype (Second Revision):

http://laserpositioningsystem.com/Solar Sign Spinner.html

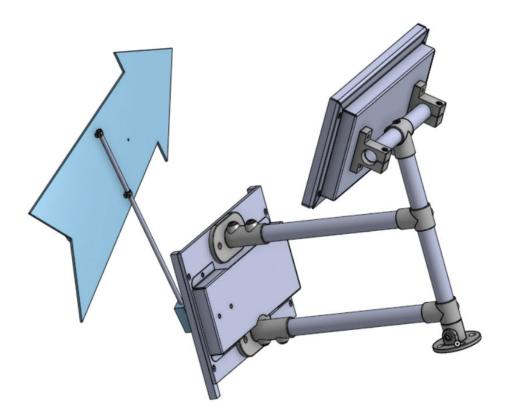
Notice that unit operates under cloud cover. At around 33 seconds into video, observe that spinner shadows that are cast to the ground nearly disappear (due to cloud cover). Motion continues.

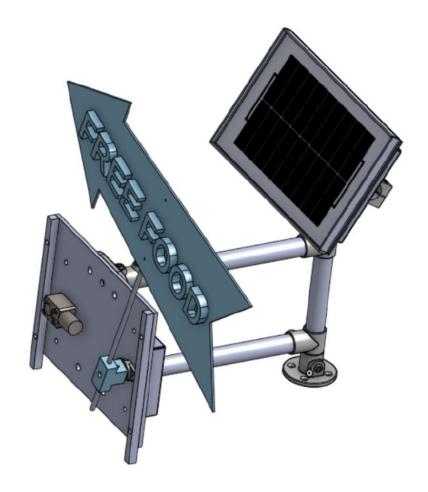
- 1. Power Switch
- 2. Speed Control
- 3. Fully enclosed wire conductors
- 4. Mount for moving sign counterweight
- 5. Removable moving sign
- 6. Mass producible rocker mechanism
- 7. Precision machined steel rocker shaft and bronze bearing for smooth operation and long service life

Prototype for market introduction (Third Revision)

- 1. Cover for motion mechanism (See pictures below)
- 2. Mechanism plate flipped to allow full sweep of rocker mechanism motion
- 3. Slip ring for solar panel rotation
- 4. Formed sheet metal housing for electrical controls and solar panel mount
- 5. Optional battery charging capacity
- 6. Optional digital voice recorder and voice replay capability
- 7. Pins in structural tubing joints to thwart unit disassembly (theft prevention)

Solid model by Joel Sommerville





Patent Summary:

Solar-powered attention sign

Solar-powered attention sign

U.S. Patent Number 10679525 for Solar-powered attention sign