

**EARGO**



**jason:**  
design engineering



## Hearing Aids

# CONSUMERS AGE

SOURCE: NATIONAL INSTITUTE OF DEAFNESS  
AND OTHER COMMUNICATION DISORDERS  
(NIDCD)

"The average age of first-time hearing aid wearers is 70 years of age"

# DESIGN PROCESS



## Objective

Making a cable-less pebble case by having male USB-A connector



# DESIGN PROCESS

## DESIGN CONSTRAINTS:

1. Male USB-A connector has to be in the center
2. USB-A connector are exposed when used, covered when not used
3. When charging on a wall, Pebble has to be parallel with walls not protruding out (Image: 1)
  - a. To prevent people knocking over the pebble when charged on walls
4. Based on the research by NIDCD, people above 70 years old are the main user of hearing aids. So, to make it easier for senior people, small interactive features such as small buttons or hidden buttons are avoided.

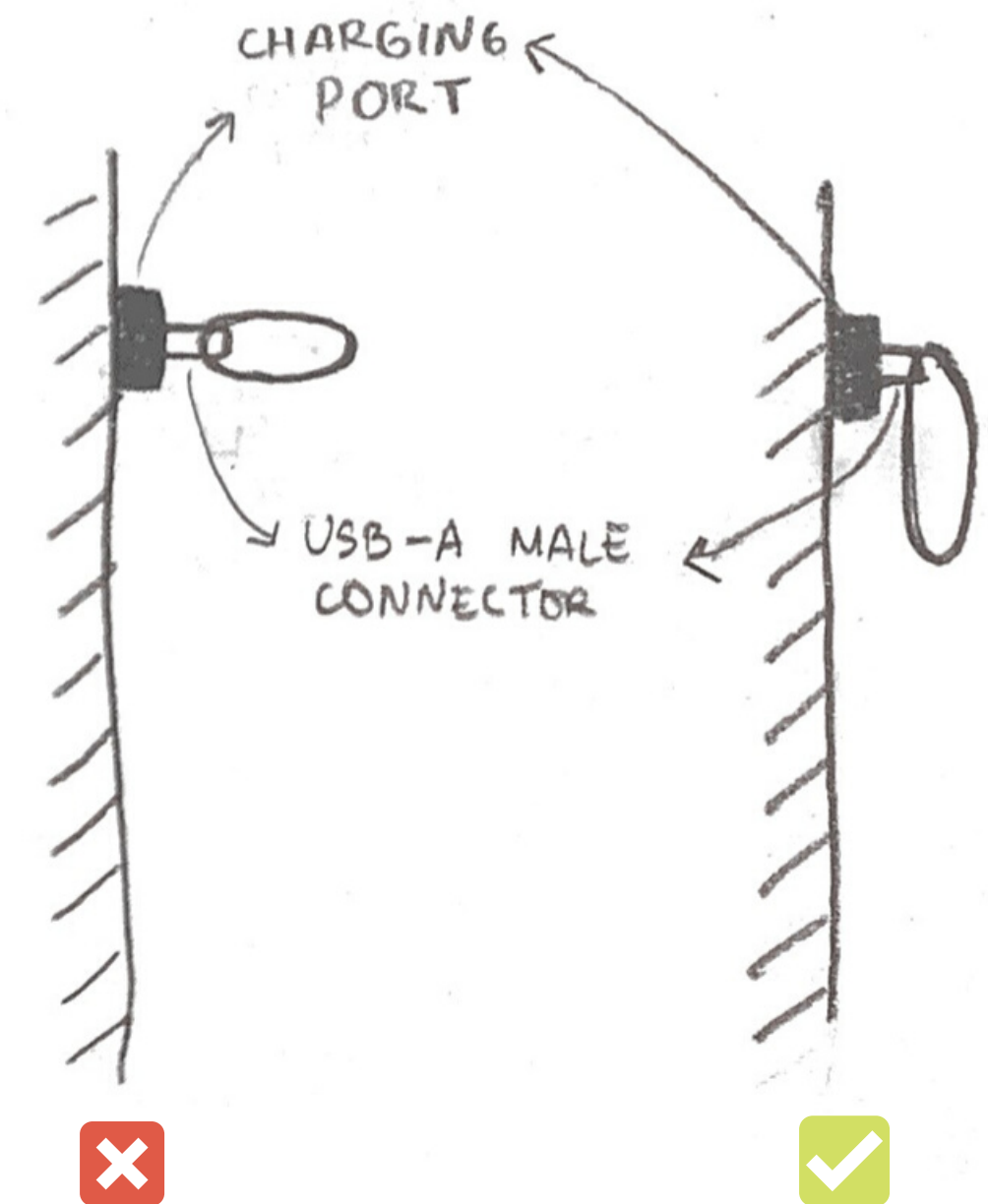
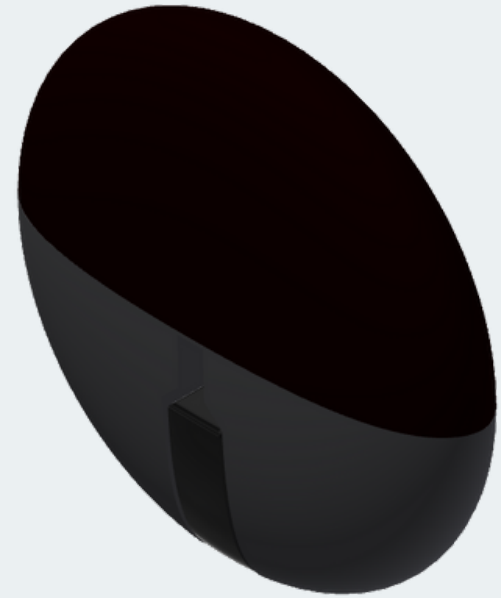
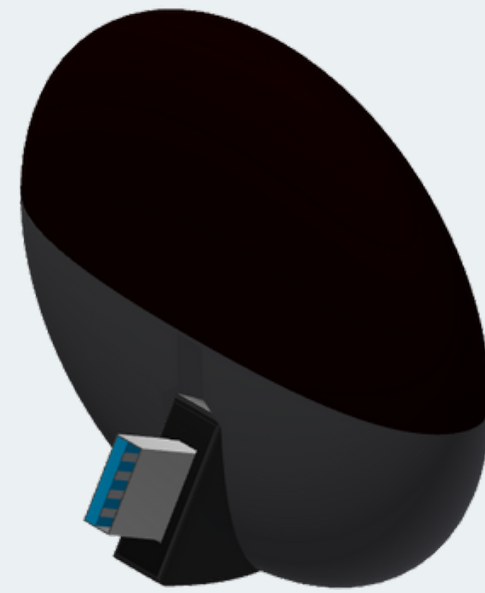


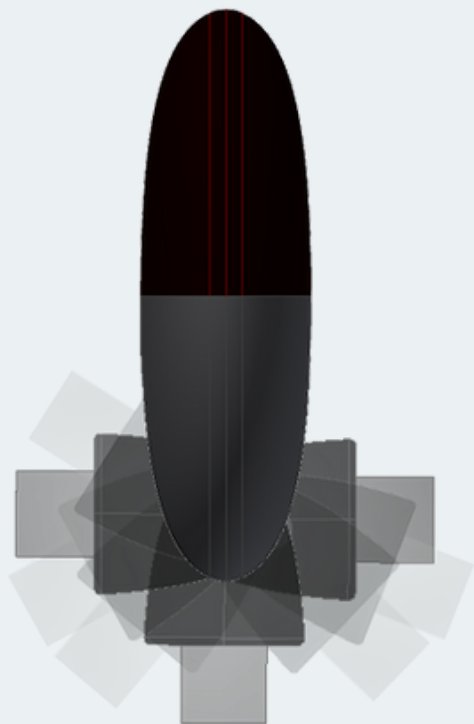
Image 1: Pebble in line/parallel with wall charging surface (side view)



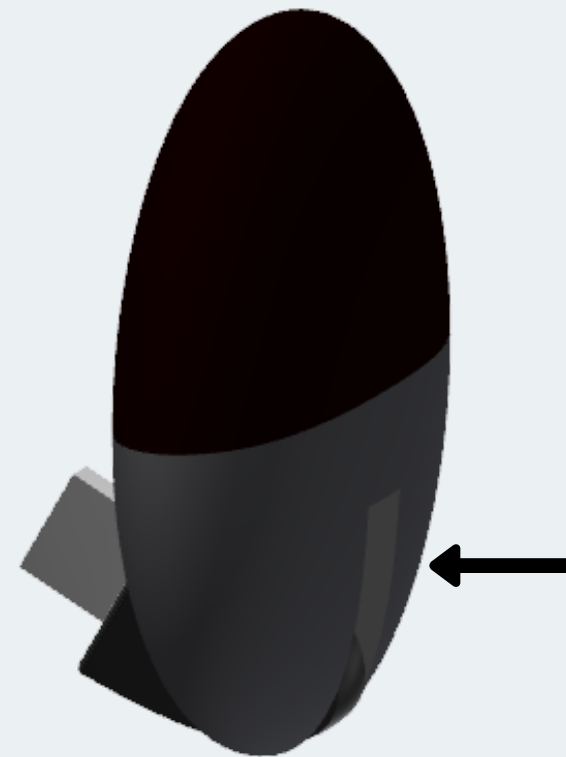
HIDDEN



EXPOSED



10 DIFFERENT CONFIGURATION



PUSH-TO-EJECT

# DESCRIPTION

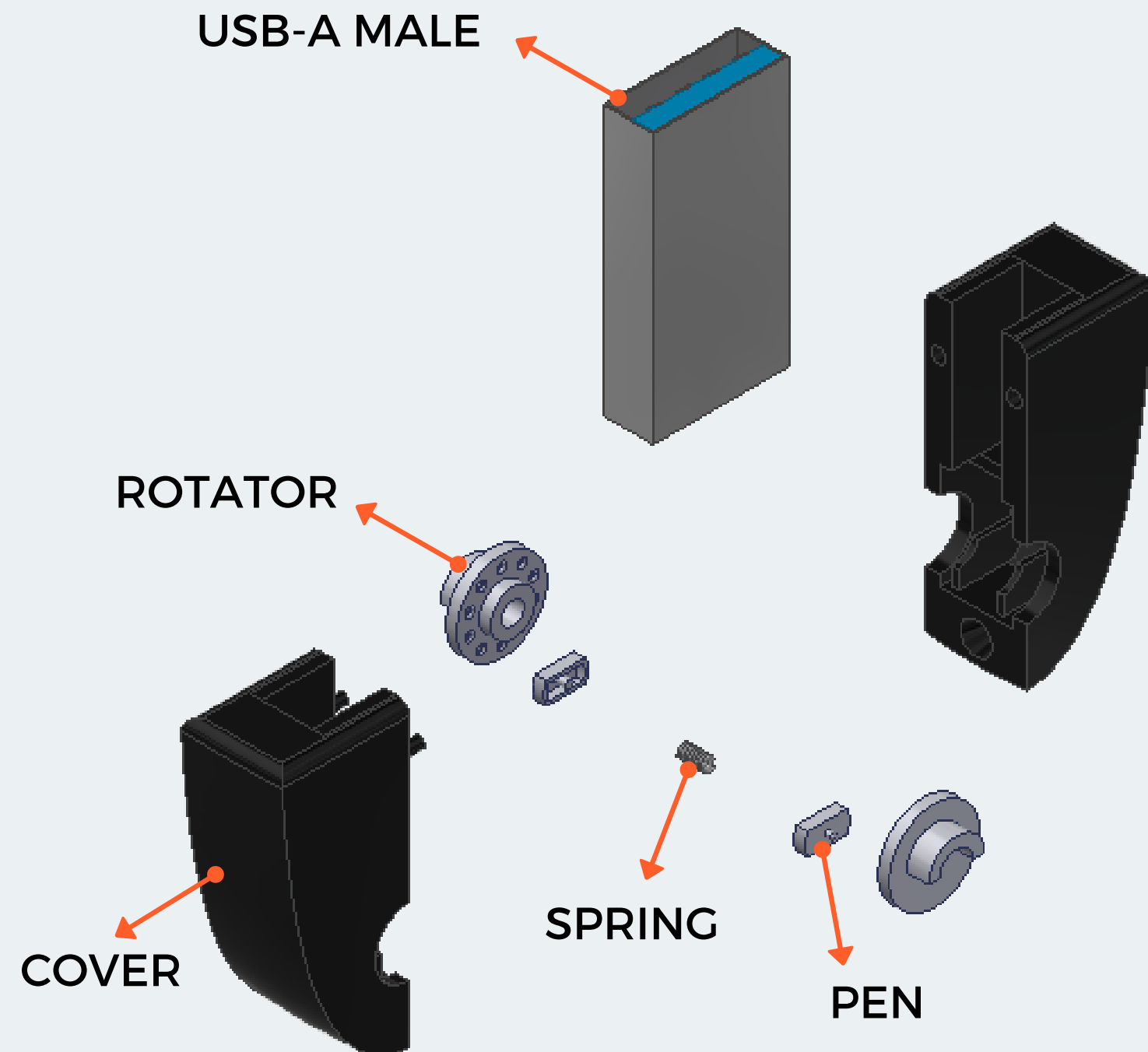
The new pebble look is a collaboration featuring a San Diegan design engineer named Jason Joshua. With 10 different angle configurations, the simple spring mechanism allows user to easily rotate the USB hub to charge their pebble.

## HOW IT WORKS

1. Push to eject the USB
2. Rotate to the angle you want
3. 10 different angles configuration to accommodate your charging needs

# MECHANISM

What is actually inside?

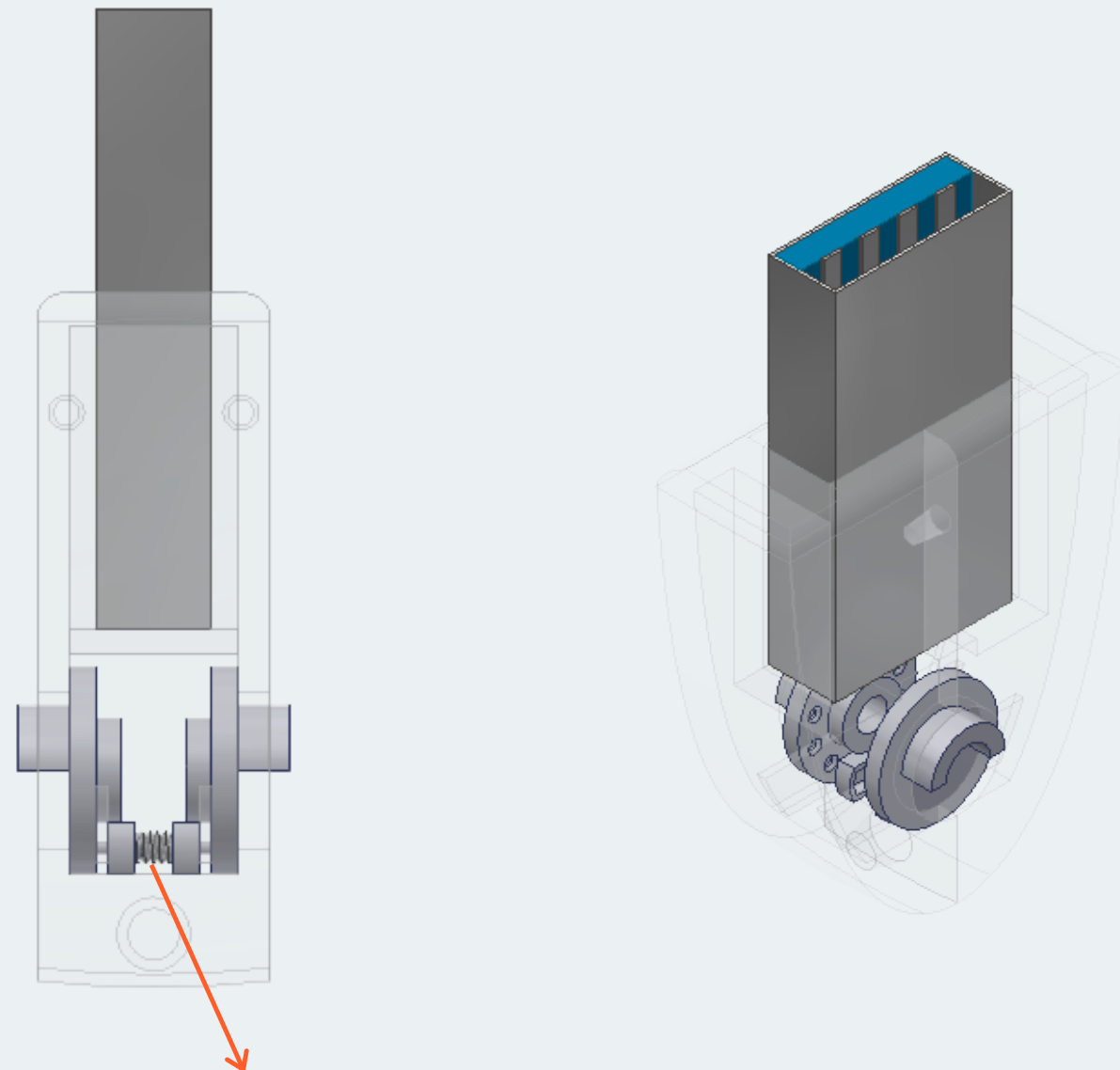


## COMPONENTS/UNIT:

- 1 SPRING
- 2 ROTATORS
- 2 PENS
- L-R SIDE COVER
- 1 USB-A MALE

# MECHANISM

## HOW DOES IT WORK?



Spring allows USB to rotate to different position

### BREAKDOWN:

1. Rotator does not move (Image 2)
2. Spring is going to be compressed when rotating the USB hub by hand
3. Pen goes into the holes in rotator to prevent the pebble from rotating

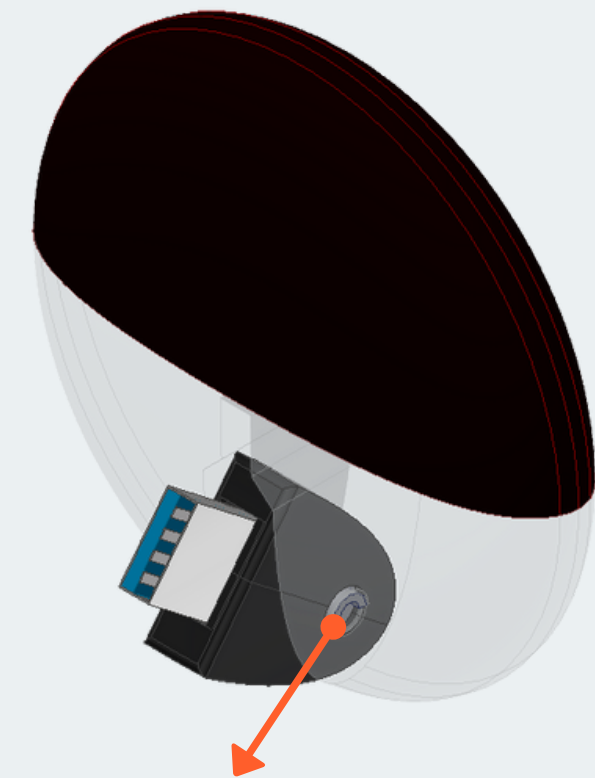


Image 2: Rotator stays in position. The cover has a housing for the rotator that allows it to stay in the orientation (depicted in the picture) when the USB is rotated

thank you.