



ASSIGNMENT 5: FINAL CONCEPT

BERKELEY CHANDLER

**ID 6106
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ABOUT ME

BERKELEY CHANDLER



BIO

My name is Berkeley, and I'm a student at Georgia Tech pursuing my Master of Industrial Design.

My work background is mainly in UX research, specifically within the healthcare field.

I am passionate about understanding the reciprocal relationship between the way people think and the technology they interact with; then using that understanding to build innovative products that help people.

My long-term career goal is to focus my design and research skills in medical devices and assistive technology.

CONTACT ME!

berkeleychasechandler@gmail.com
berkeleychandler.com
linkedin.com/in/berkeleychandler

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DESIGN CONCEPT

ORIGINAL LOOK

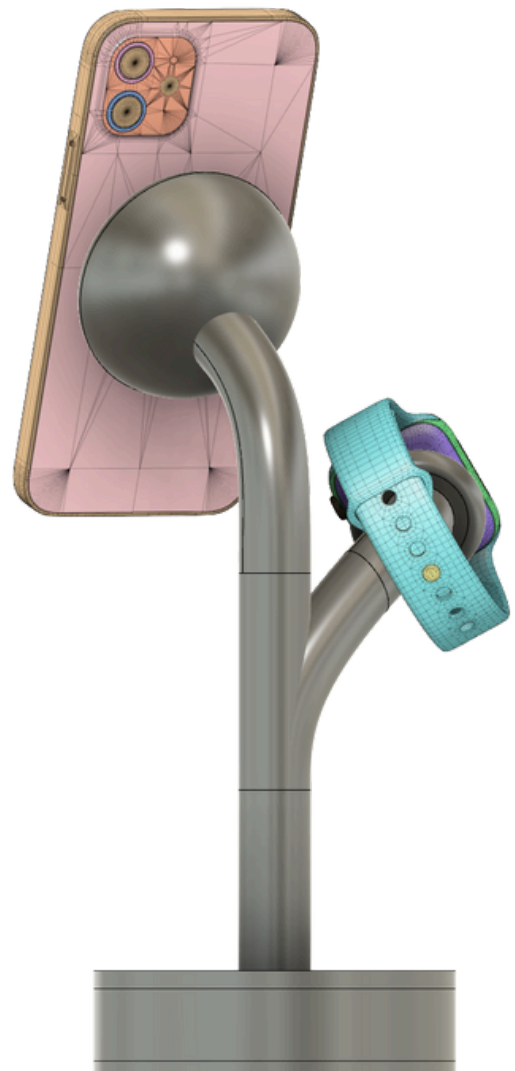


DETAILS

The angles and height of the branches provide an ergonomic setup.

The sizes of the end caps for both branches properly fit the two types of chargers that are meant for each device.

The base is made up of 3 separate pieces to allow the middle piece to be made from a different material for the interactive element of the cradle.



DESIGN CONCEPT

UPDATED LOOK



CHANGES MADE

New aesthetic components were added to the previous design of the device holder, including leaves on the stem and sunflower petals around the iPhone charger holder.

These additional bodies were formed using the Surfaces feature in Fusion 360 and then adding depth to them.

Another update (shown in the renderings below) is that the colors of the different components now match those of a sunflower as opposed to the original all black design.



RENDERINGS

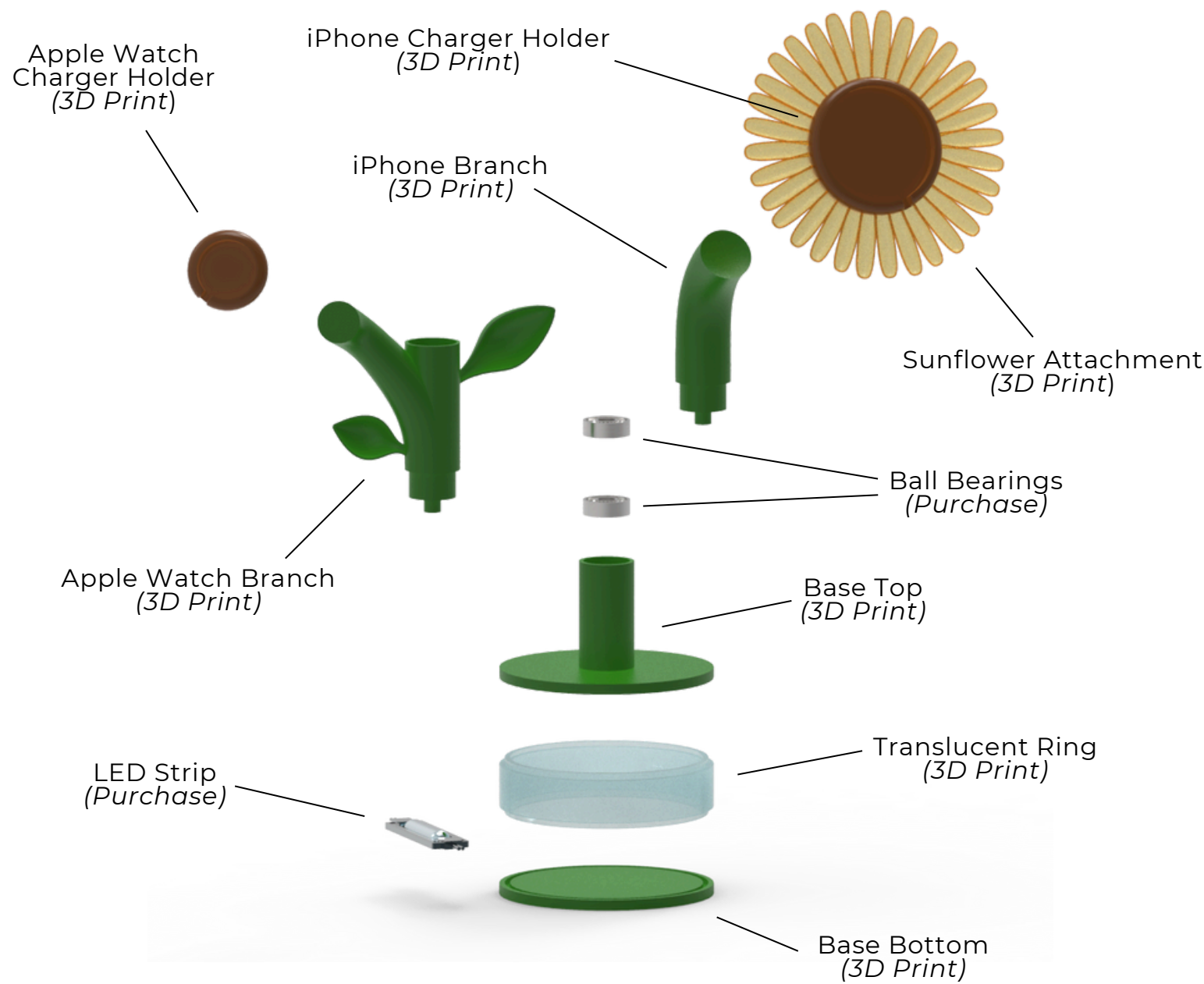
DEFAULT VIEW

This cradle is designed to hold both an iPhone and an Apple Watch by having them magnetically connect with the chargers that fit into each branch. Both branches are able to swivel 360 degrees around the main cylinder, and the base of the cradle has an LED strip inside of it and a translucent ring around the side, allowing it to light up.



RENDERINGS

EXPLODED VIEW

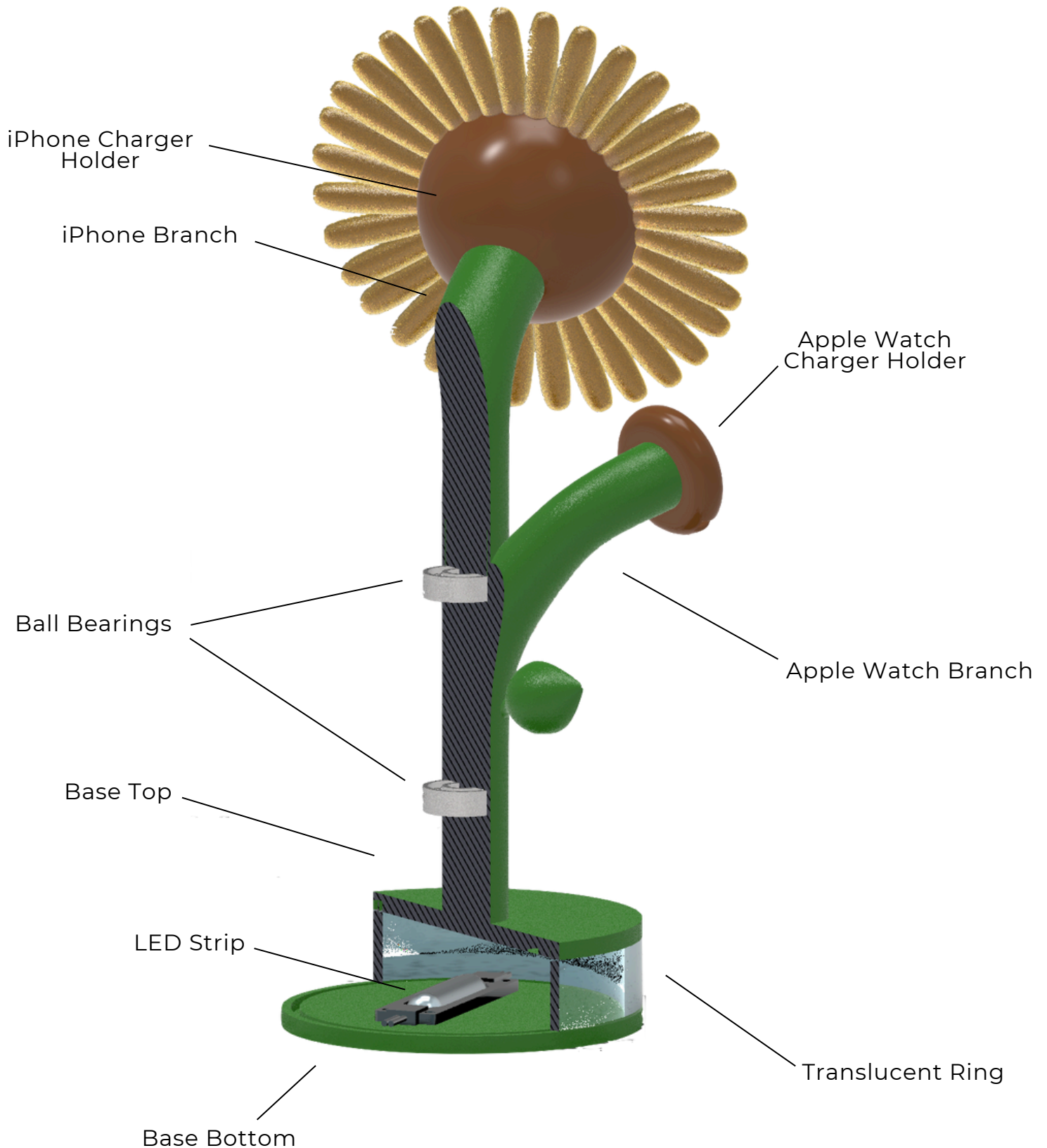


5321 RULE

5+ parts total	✓ 11 parts total
3+ parts made	✓ 8 3D printed parts
2+ parts purchased	✓ 2 ball bearings
1+ electronic component	✓ Led Strip

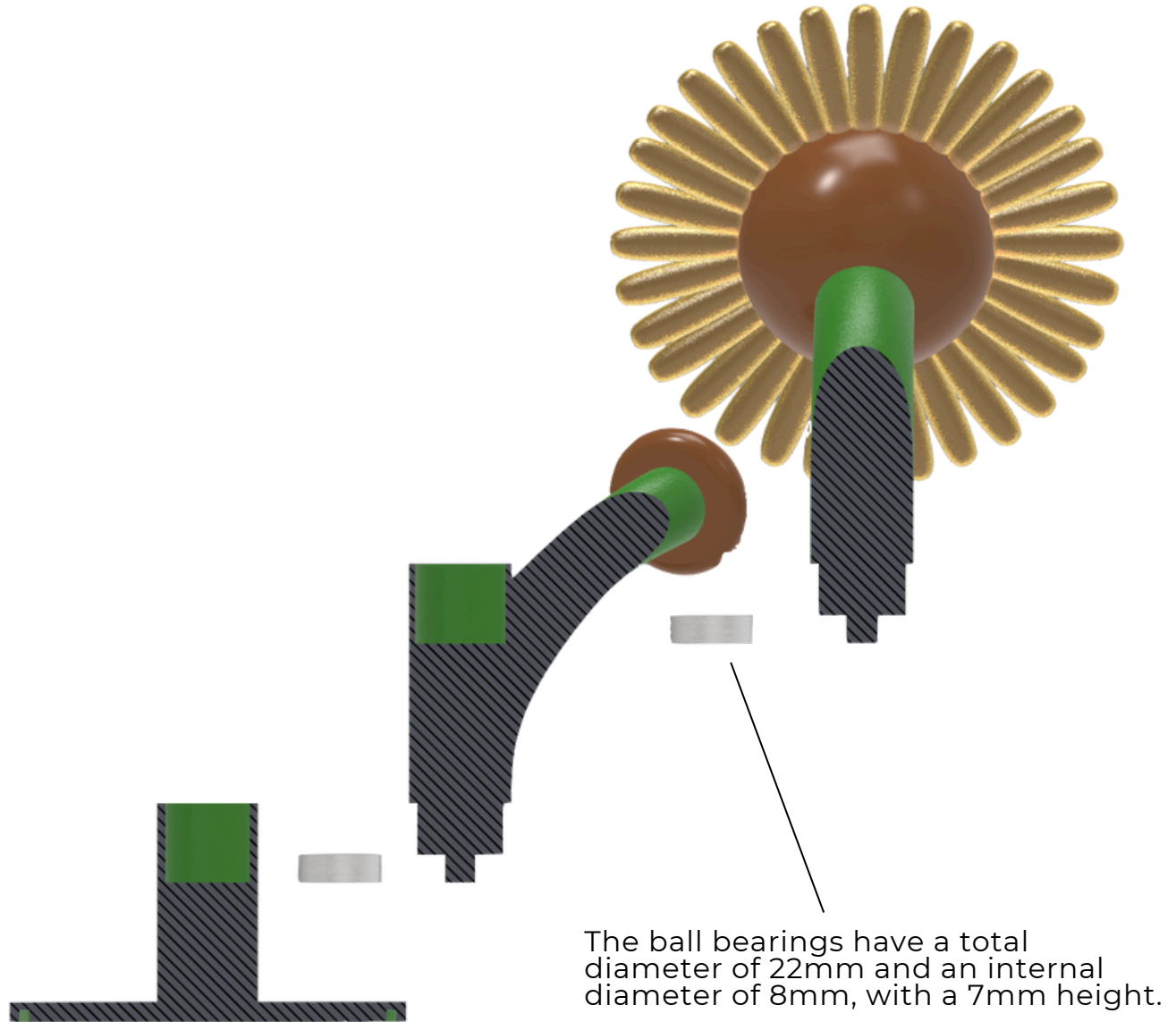
RENDERINGS

SECTION VIEW



RENDERINGS

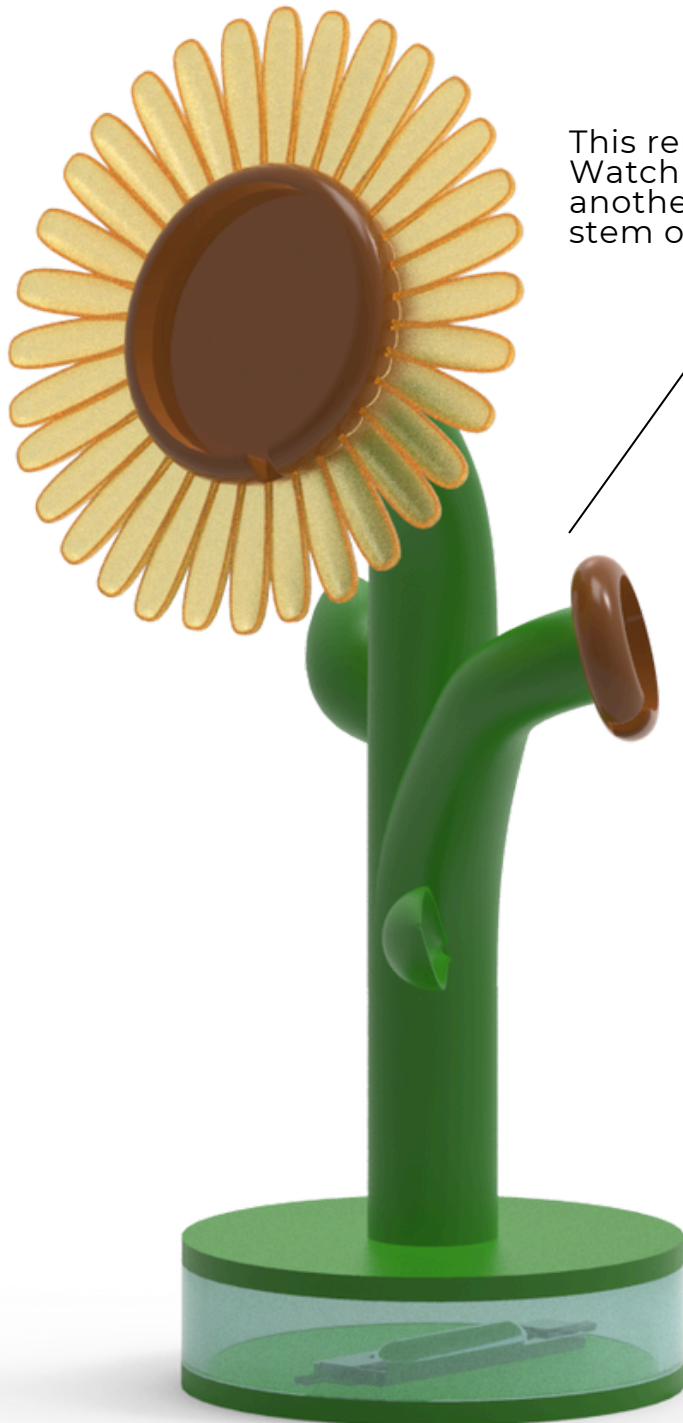
ARTICULATING ELEMENT



The branch pieces are all 25mm in diameter. Hollow cutouts are created at the tops of the base and middle branch pieces for the ball bearing to slide into, as well as the extruded parts at the bottom of the middle and top branch pieces. The ball bearings allow the middle and top branch pieces to individually rotate 360 degrees.

RENDERINGS

ARTICULATING ELEMENT



This render shows an example of the Apple Watch branch being rotated around to another point along the vertical axis of the stem of the cradle design.

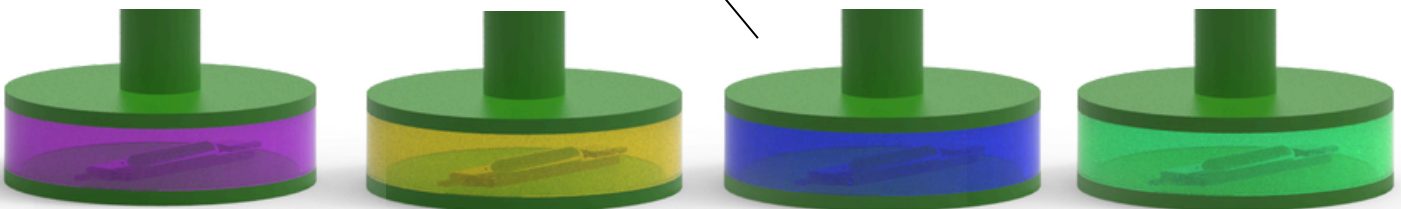
RENDERINGS

INTERACTIVE ELEMENT

The base of the cradle is hollow so that an LED strip can fit inside of it. The wall of the cylinder is made of translucent material, allowing the light from the LED to shine through.



The LED strip can be customized to illuminate any color.

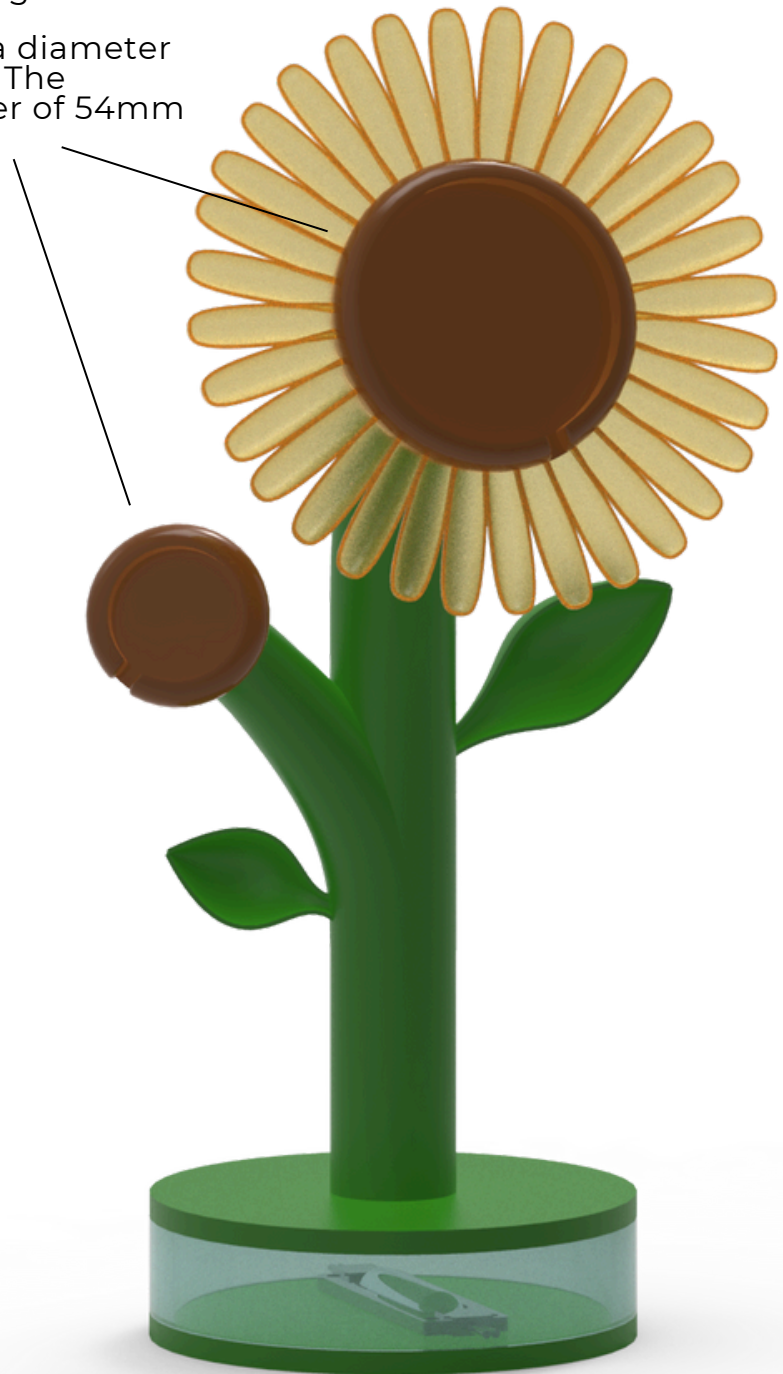


RENDERINGS

INTERACTIVE ELEMENT

The ends of each branch have a divot in them that fit the dimensions of the Apple Watch and Apple Magsafe chargers.

The Apple Watch charger has a diameter of 28mm and a depth of 8mm. The Magsafe charger has a diameter of 54mm and a depth of 6mm.



INTERACTIVE PRESENTATION ANIMATION

METHOD CHOSEN

Keyshot Animation Renders + Adobe AfterEffects Video

SCREEN CAPTURES

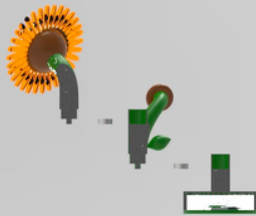
The Sunflower Charger Stand



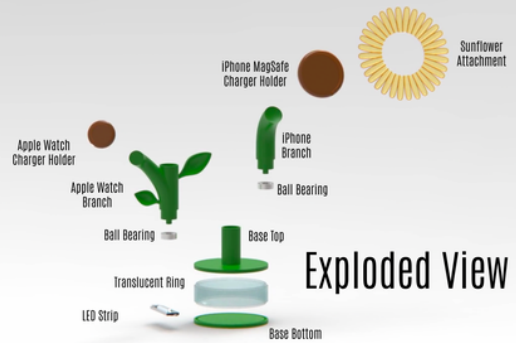
Articulating View



Cutaway View



Exploded View



Fits both an Apple Watch charger
and an Apple MagSafe iPhone Charger

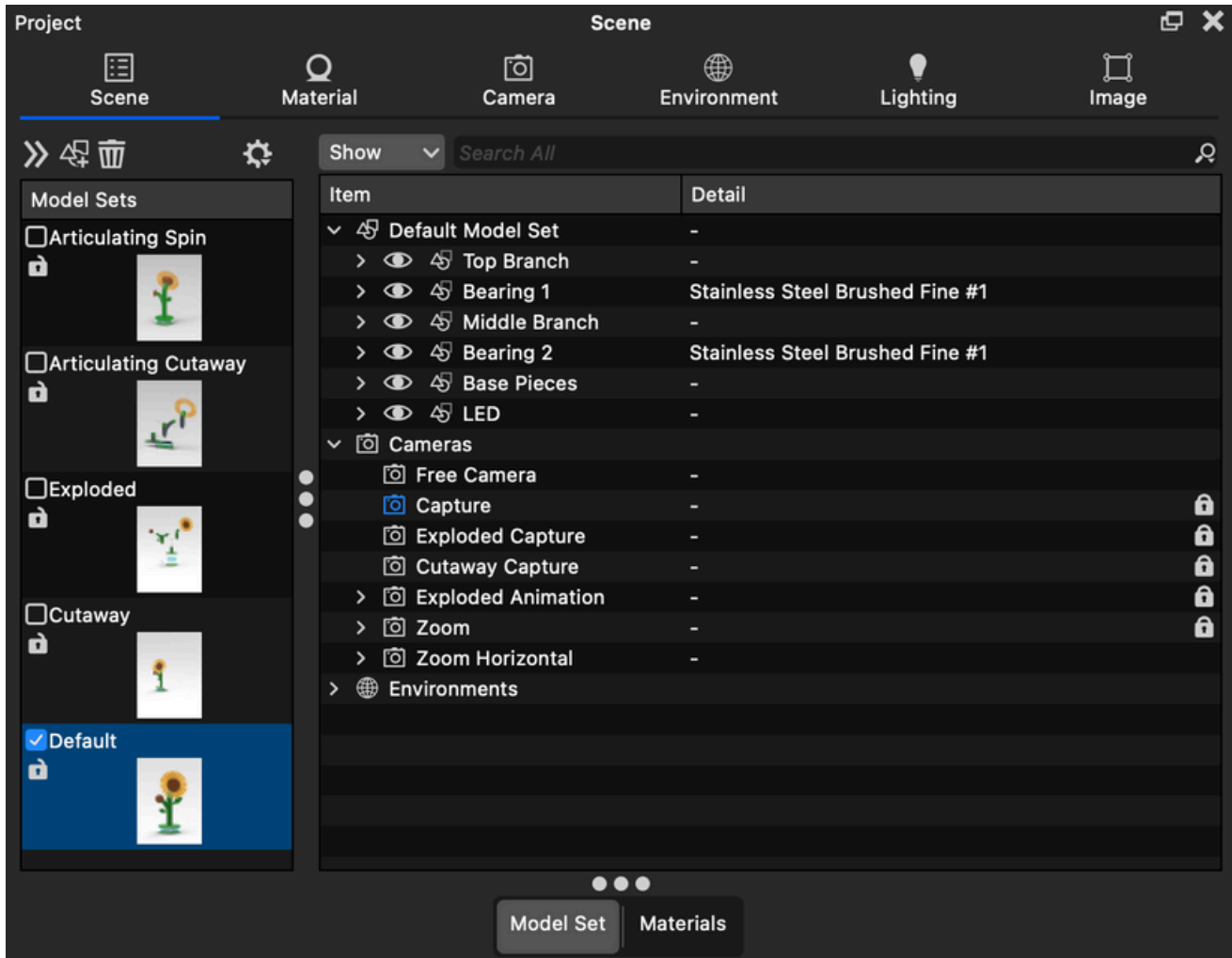


by Berkeley Chandler



APPENDIX

MODEL SETS



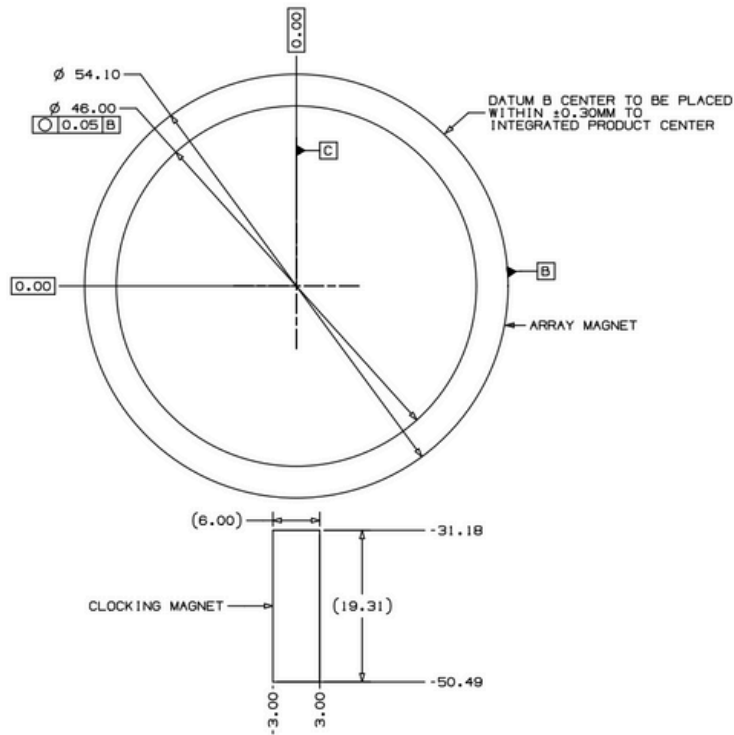
Five model sets were used in my Keyshot file. The Default model set was used to capture the default view render (pg. 6) and the interactive element renders (pg. 11-12). The Cutaway model set was used to capture the section view render (pg. 8). The Exploded model set was used to capture the exploded view render (pg. 7). The Articulating Cutaway model set was used to capture the first articulating element render (pg. 9). The Articulating Spin model set was used to capture the second articulating element render (pg. 10).

APPENDIX

CHARGER DIMENSIONS

MAGSAFE CHARGER DIMENSIONS

Figure 34-2 MagSafe Magnet Array Dimensions



APPLE WATCH CHARGER DIMENSIONS

