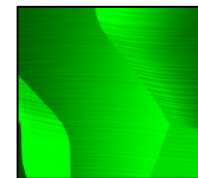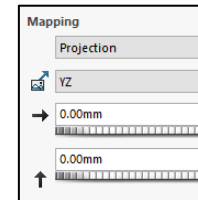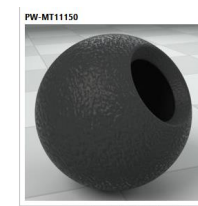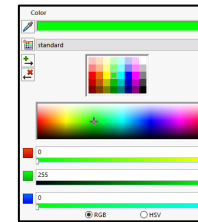# SCUTTLE Rendering Guide

Revision 2023.05.27
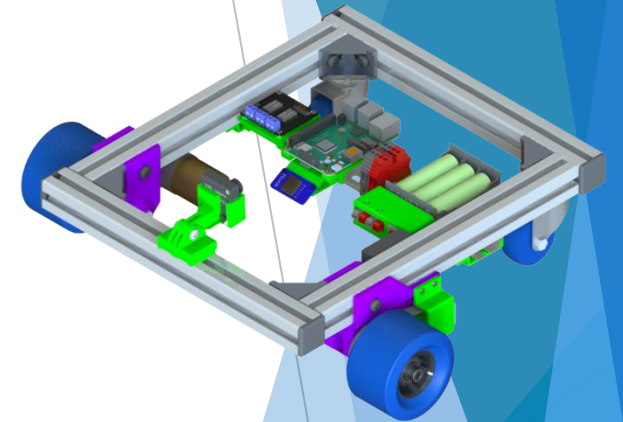
In this Guide:

1. SUMMARY of key points

2. Color selection

3. Appearance & Lighting settings files

4. Texture mapping for Render

5. Achieve 3D-Printed look

SUMMARY for reference:

Material File
- Example: green-pw-mt11050.p2m
- Commonly stored with your assembly
- Contains colors/textures within

Appearance File
- Need to explore
- Can be carried by Material
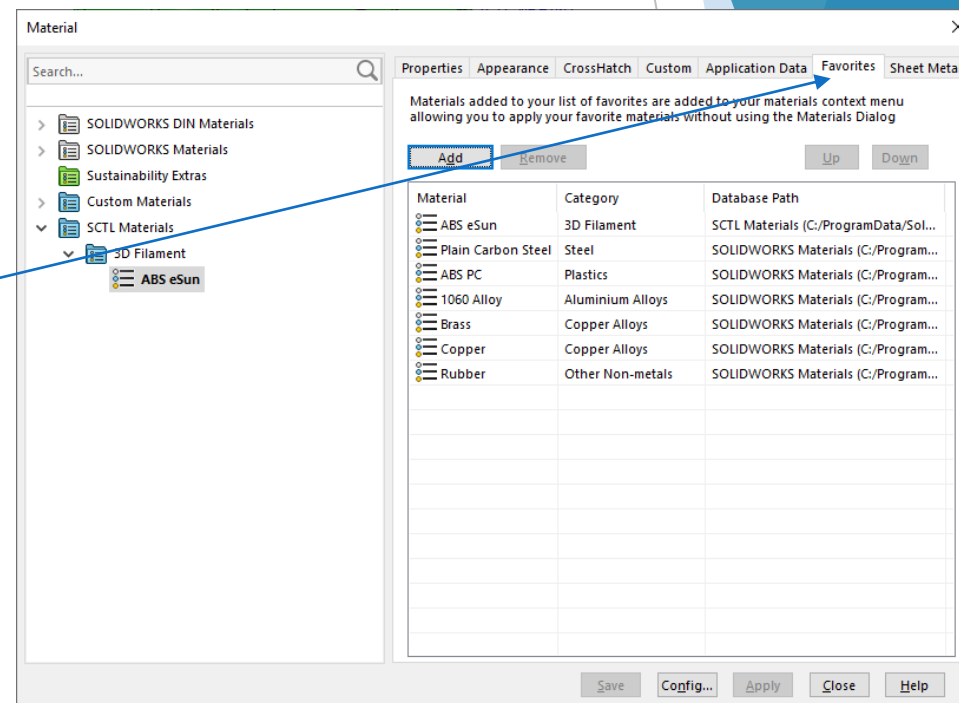
Material Favorites
- Find material in feature tree
- Right click ▶ edit material
- Find the Favorites tab inside the Material dialogue box

Environment File
- Impacts the rendering but not the part.
- Default location: Program Files\SOLIDWORKS Corp\SOLIDWORKS\data\Images\textures\background
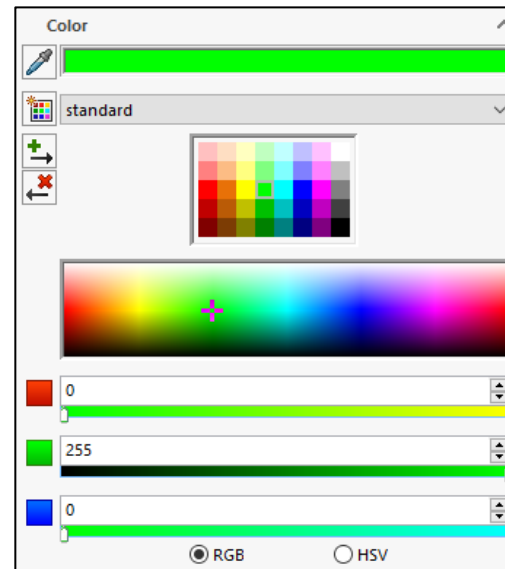- Example: Kitchen.hdr

Scene File
- Carried by environment?
- Example: 11 white kitchen.p2s
- Contains settings for PhotoView360 lighting

Colors

- Set Material Color:
  - Select material ► advanced ►color/image ► Green from standard color swatch:
  - R-G-B = 0-255-0
 - or
  - HSV = 120, 100, 100

Handling Textures

Settings:
- When you go to the Advanced button ▶ Mapping tab,
- You will see the bounding box described by your mapping settings.
- The blue box describes the plane along which the texture mapping is stretched.
- This box shown corresponds to 6x120mm texture mapping.
- The grain direction is automatically selected.

Texture mapping represented before render
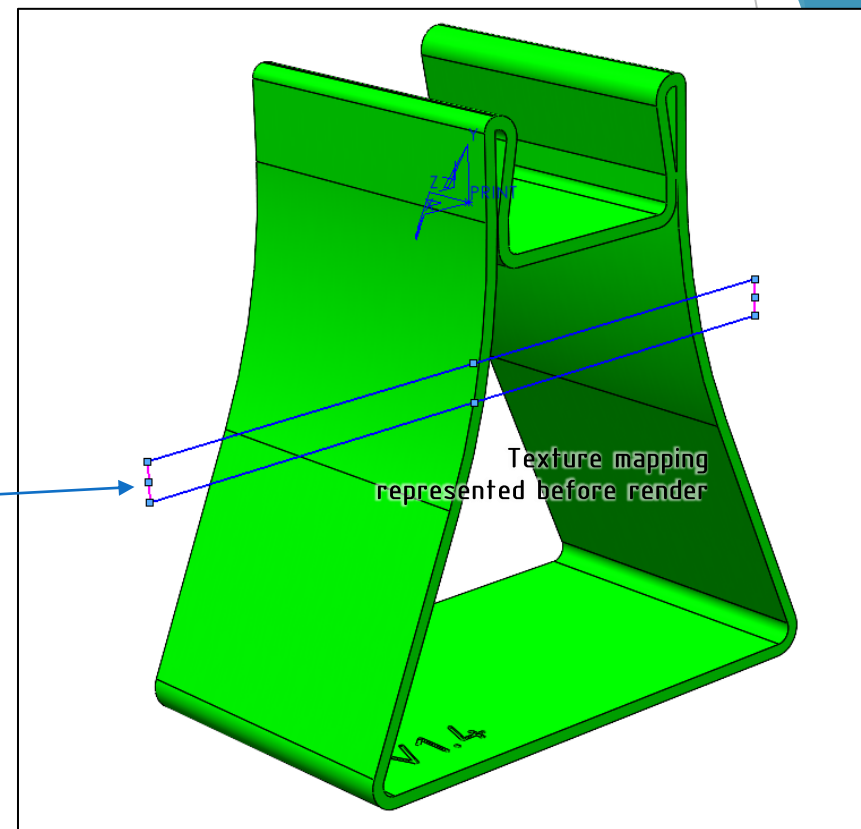
Handling Textures (SOLIDWORKS)

Mapping Settings:
- Before applying mapping, select: OPTIONS ► SYSTEM OPTIONS tab ► Export ►Output coordinate system.
- Set export coordinate system to your PRINT coordinate frame.
- Achieve correct direction by adjusting mapping plane.
  1. Select projection
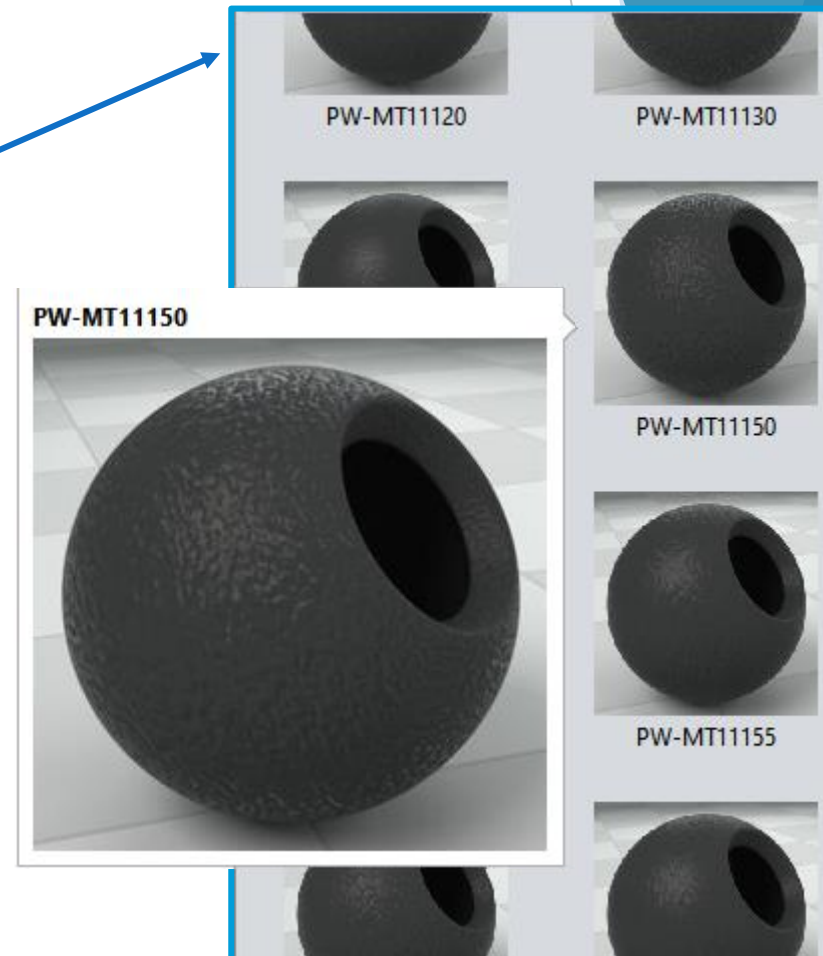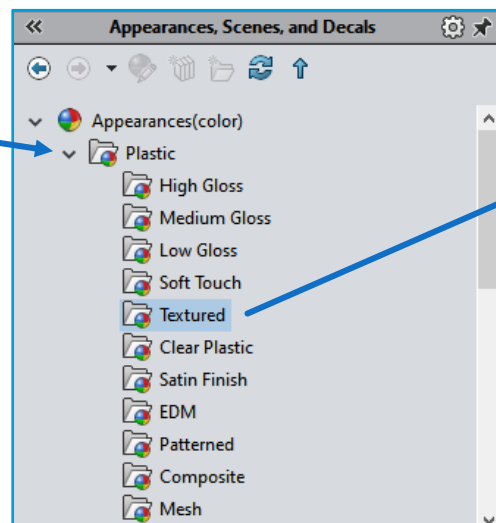 2. Select desired plane
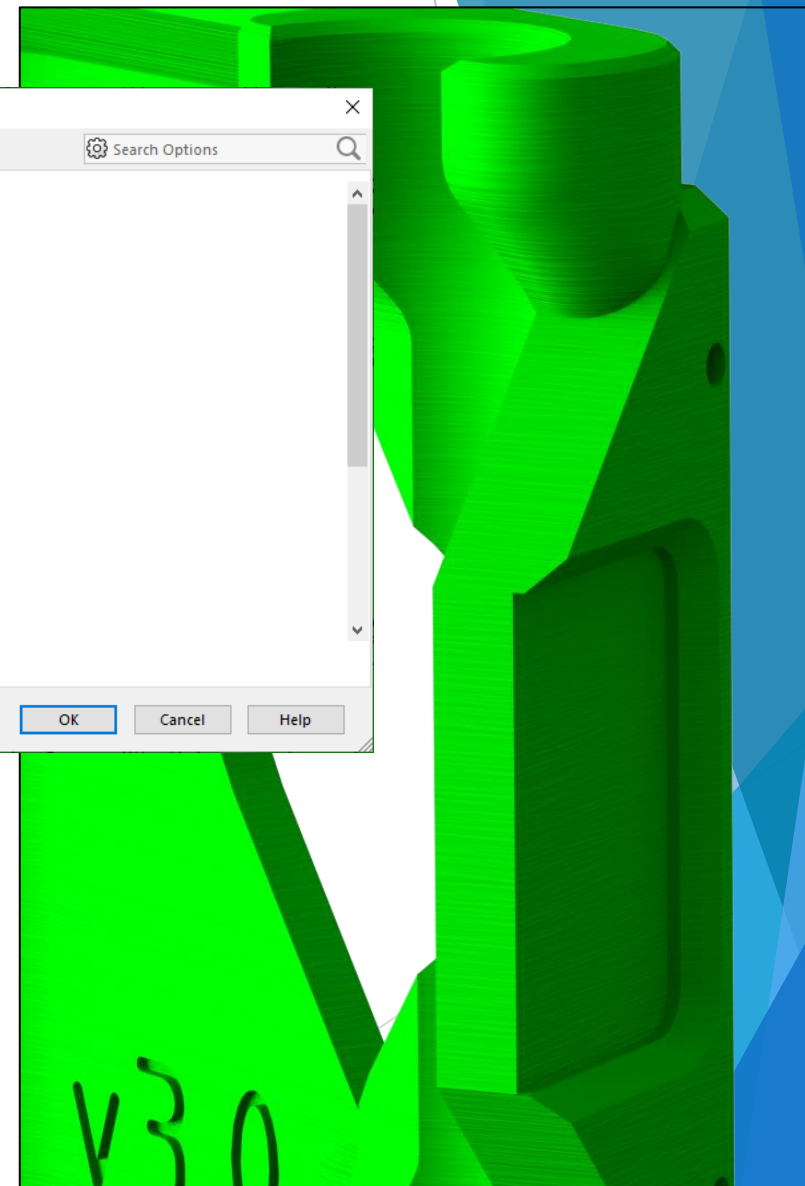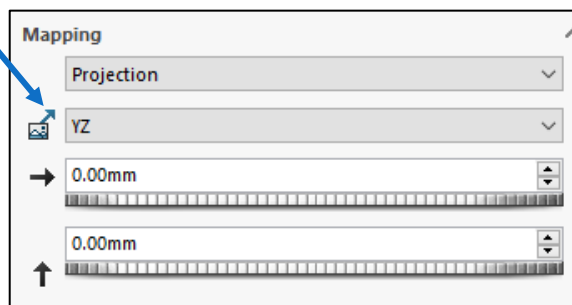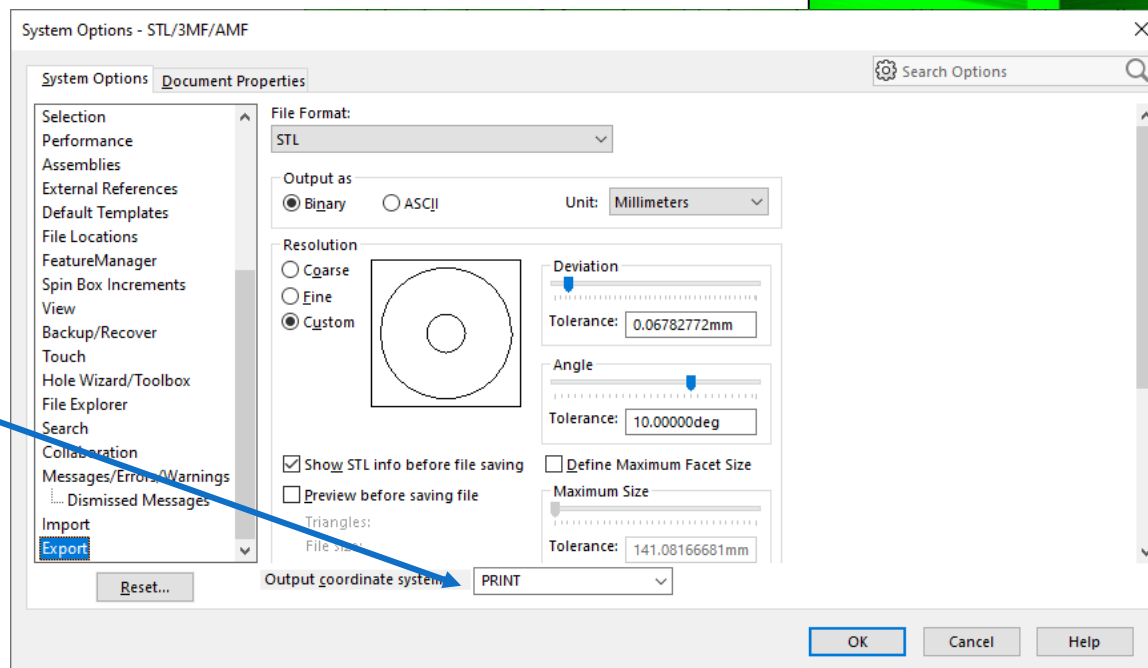
Handling Textures (SOLIDWORKS)

Mapping Settings:
- Find a built-in texture
  - Appearances ► Plastic ► Textured
  - PW-MT11150 works to start with
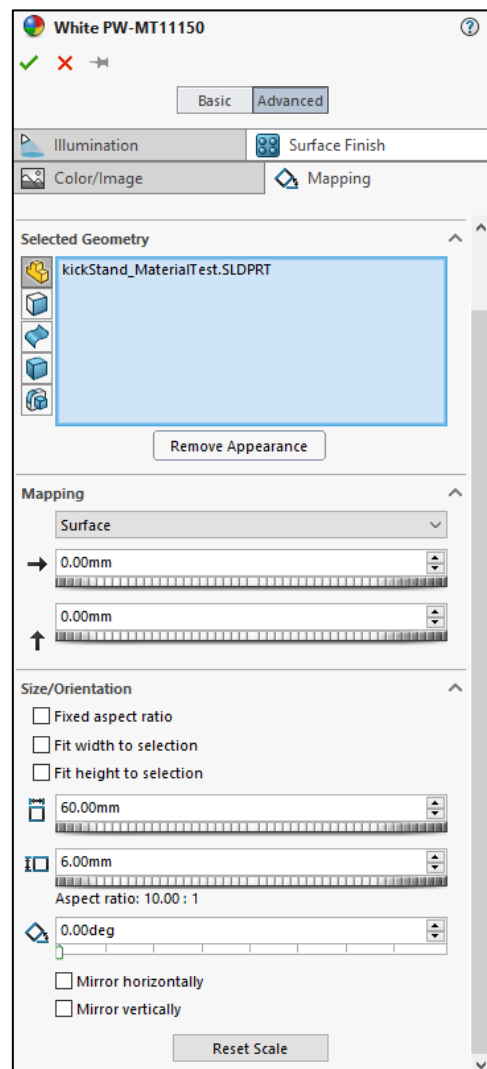
Handling Textures (SOLIDWORKS)
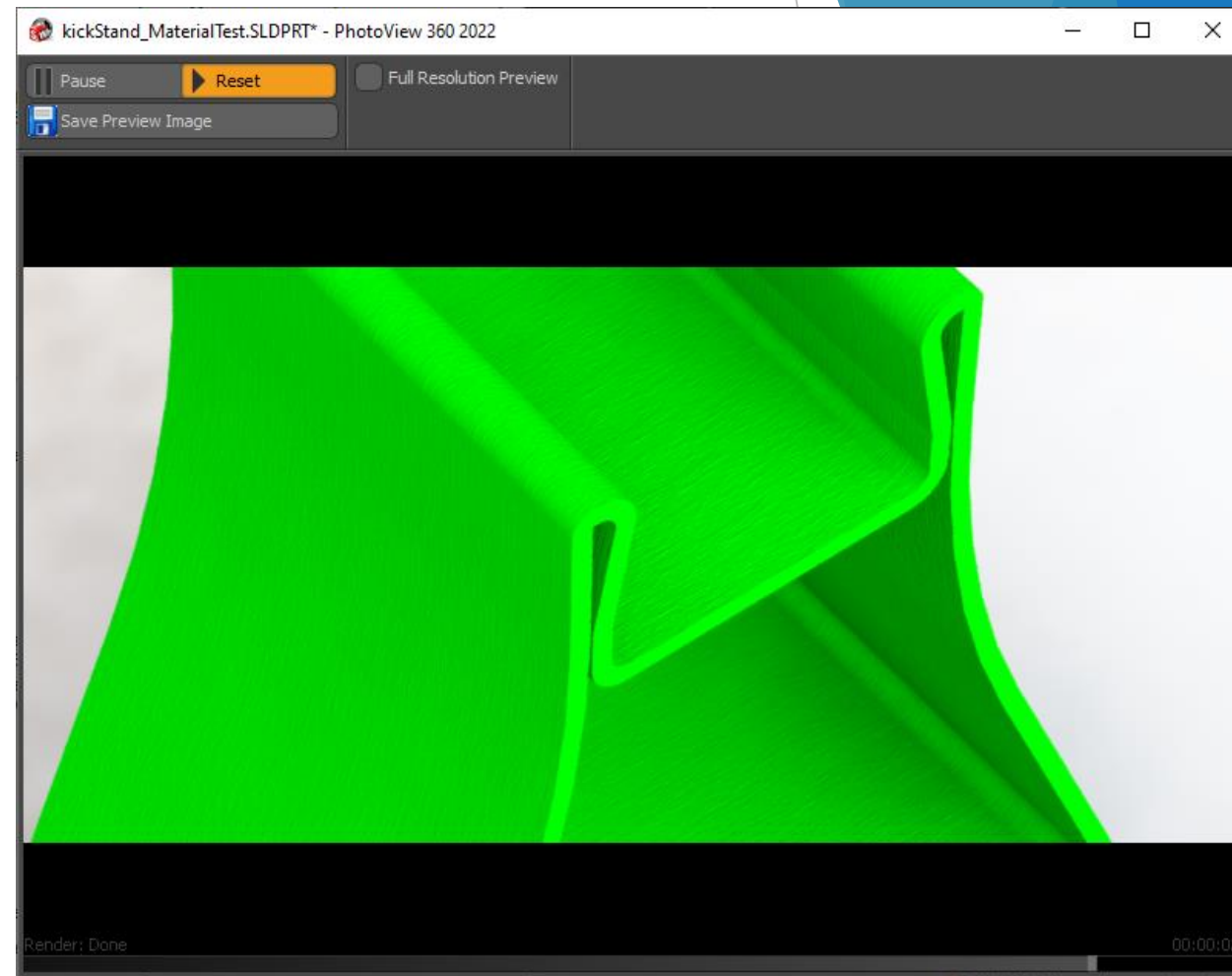
Achieve this texture using the texture menu.

Mapping Settings
- Adjust the default size of the PW-MT plastic
  - (MT11150)
- Uncheck "fixed aspect ratio"
- Set width to 120mm
- Set height to 6mm

Handling Textures (SOLIDWORKS)
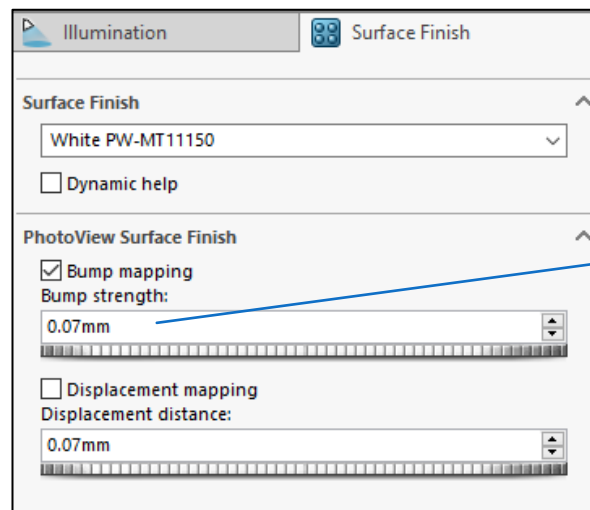
Quick reference after discovering a simple way to handle SOLIDWORKS textures:

Mapping Settings ▶ Surface Finish:
- Leave bumps at 0.07mm height
- This does not affect the model or the STL exported. It only affects the renderings in PhotoView
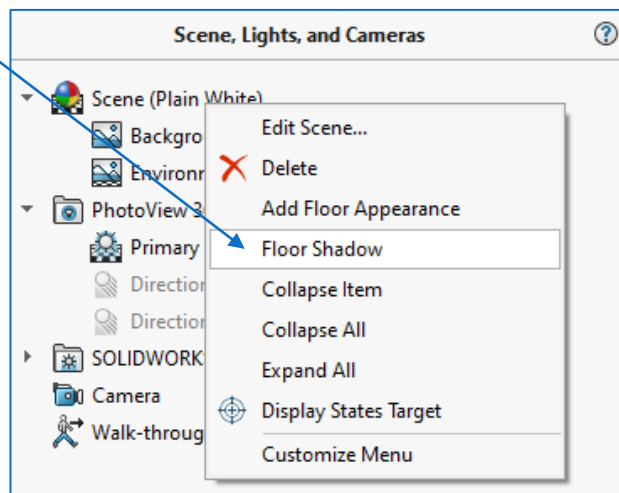- We want the height of bumps essentially to match the height of deviations resulting in prints.
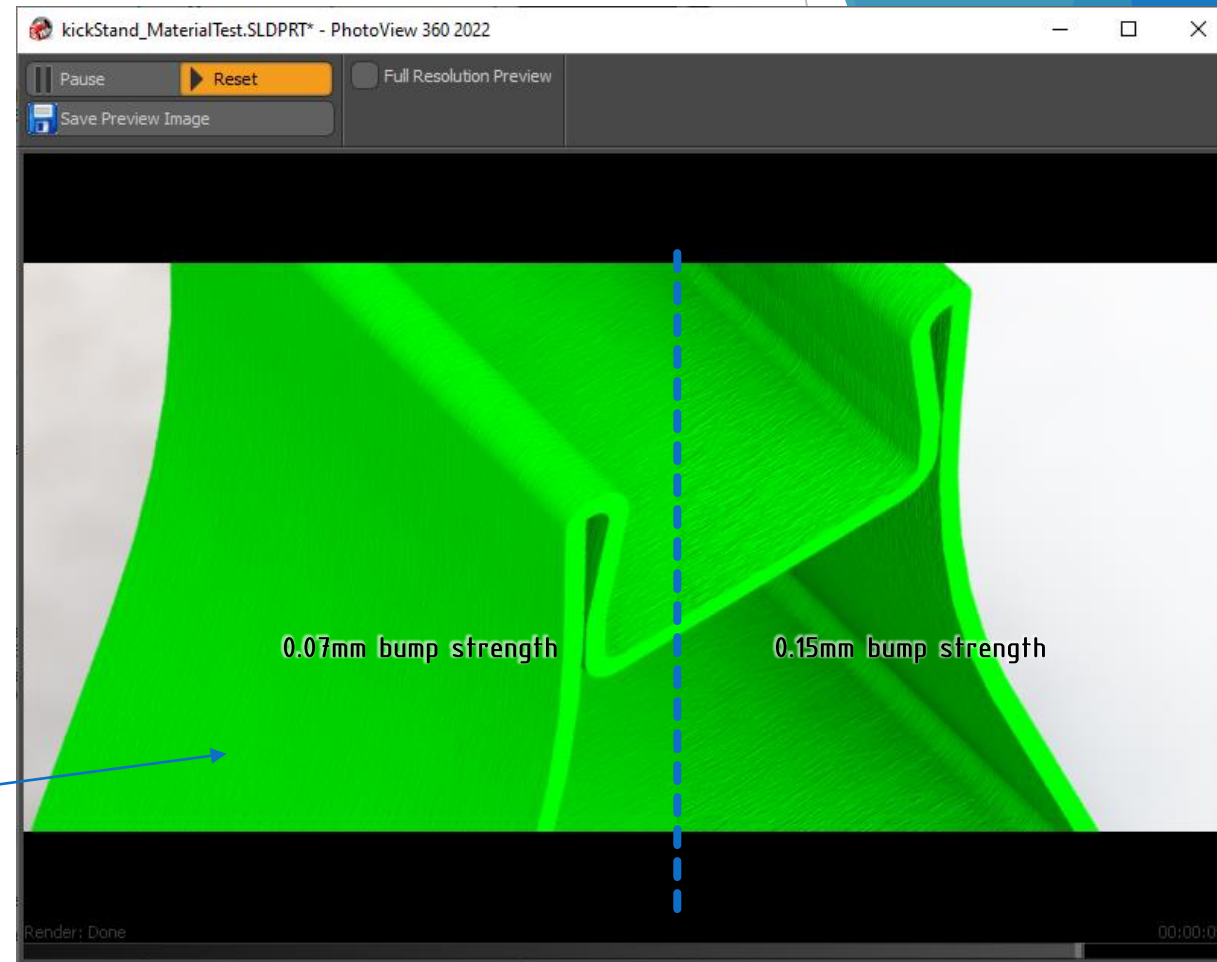
Achieve this texture using the texture menu.

Render Key Points

Settings:
1. Omit background from your render so the image works nicely on slides
2. Omit floor reflections and floor shadows
3. Export PNG for good quality and small file size

Scene, Lights, and Cameras

- Scene (Plain White)
  - Backgro...
  - Environ...
- PhotoView 3...
  - Primary
  - Direction
  - Direction
- SOLIDWORK
- Camera
- Walk-throug

Context menu:
- Edit Scene...
- Delete
- Add Floor Appearance
- Floor Shadow
- Collapse Item
- Collapse All
- Expand All
- Display States Target
- Customize Menu

Transparent region desired for slides

v3.0

Gray Region from Floor Shadow