

WALT DISNEY WORLD®
PROJECT RED
SLUGS

OPERATIONS AND REPAIR MANUAL



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Revision History

Date	Version	Description	Author
03/08/24	1.0	First iteration	Bridget Reilly Beauchamp, Brieaunna Avery
04/29/2024	1.1	Addition of Comprehensive Materials	Bridget Reilly Beauchamp, Brieaunna Avery
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1 Introduction and Preface

1.1 General Project Information

1.1.1 Notes from Monkey Boys Productions

This character is designed for use in collaboration with Walt Disney World/Disney's Hollywood Studios for use in the Voyage of the Little Mermaid Theater. All information contained herein was prepared for Monkey Boys Productions, LLC and is property of the Disney Corporation and not to be used in any way without their consent.

1.1.2 From the Disney Scope of Work, section 1.2-1.4:

General Resort Overview

Movie magic comes to life at Disney's Hollywood Studios. This park features 8 sections: Hollywood Boulevard, Echo Lake, Grand Avenue, Sunset Boulevard, Commissary Lane, Star Wars: Galaxy's edge, Toy Story Land and Animation Courtyard.

General Venue Overview

Project Red will take place in the Voyage of the Little Mermaid (VOLM) Theater located within the One Man's Dream building next to Animation Courtyard in Disney's Hollywood Studios. The VOLM Theatre is a 400-seat theatre with a small, elevated stage with access between the house and backstage on Stage Left. All elements must fit through a double door at most due to limited load in infrastructure.

General Show Overview

A reimagined retelling of the classic film seen through the unique perspective of Ariel, a 16-year-old girl. Through cutting edge technology, mixed media, puppetry, and live actors, we follow Ariel's journey as she boldly pursues her dream to be part of the human world above, even if it means leaving her under the sea home.

1.2 Item Description

1.2.1 Summarized from the Disney Scope of Work, Section 4.13.1:

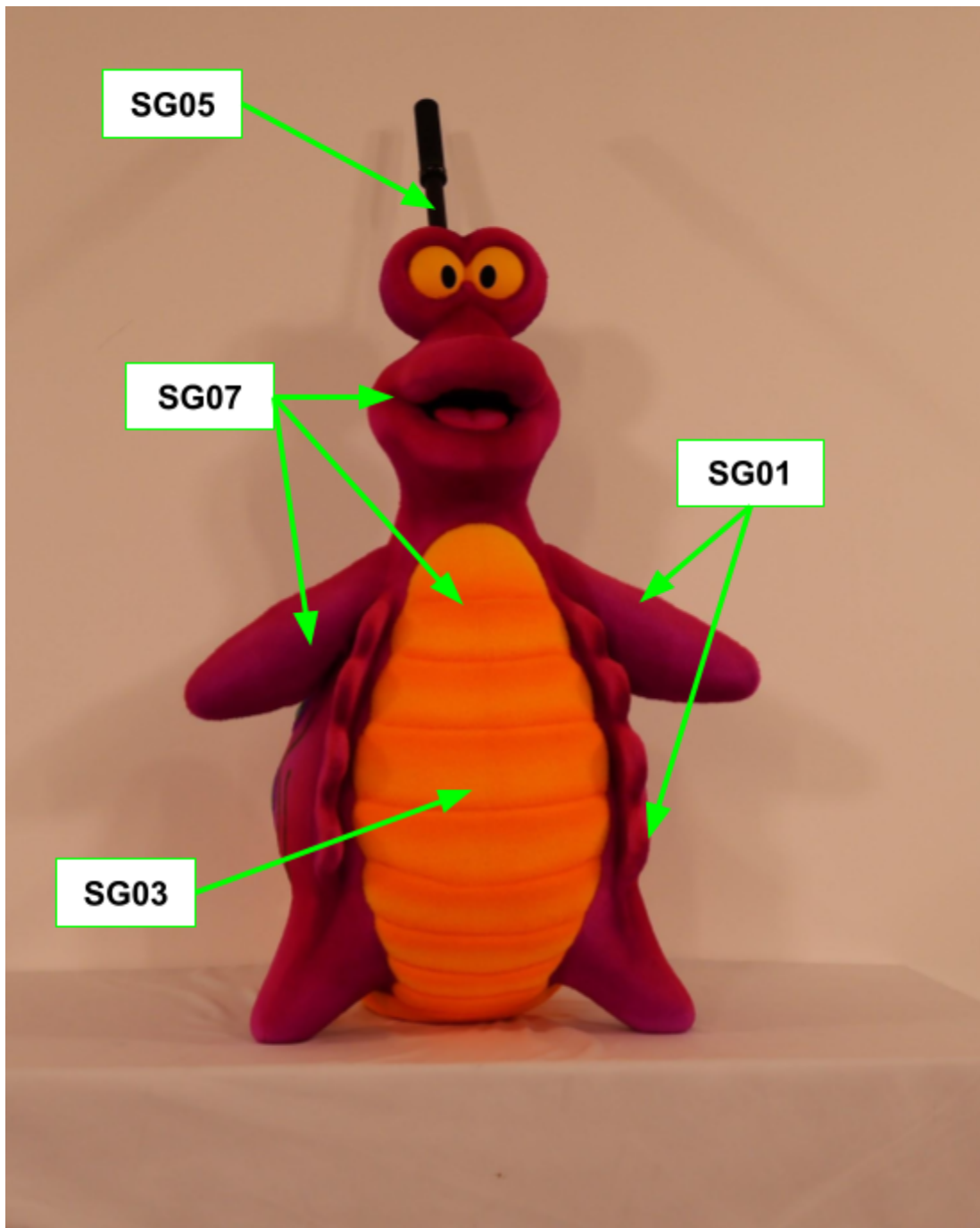
"The slugs are a pair of rod puppets controlled by a single puppeteer and performed on top of a raised platform or box. The puppets bodies will be in an upright position and should allow for a small amount of compression."

1.2.2 Basis of Engineering

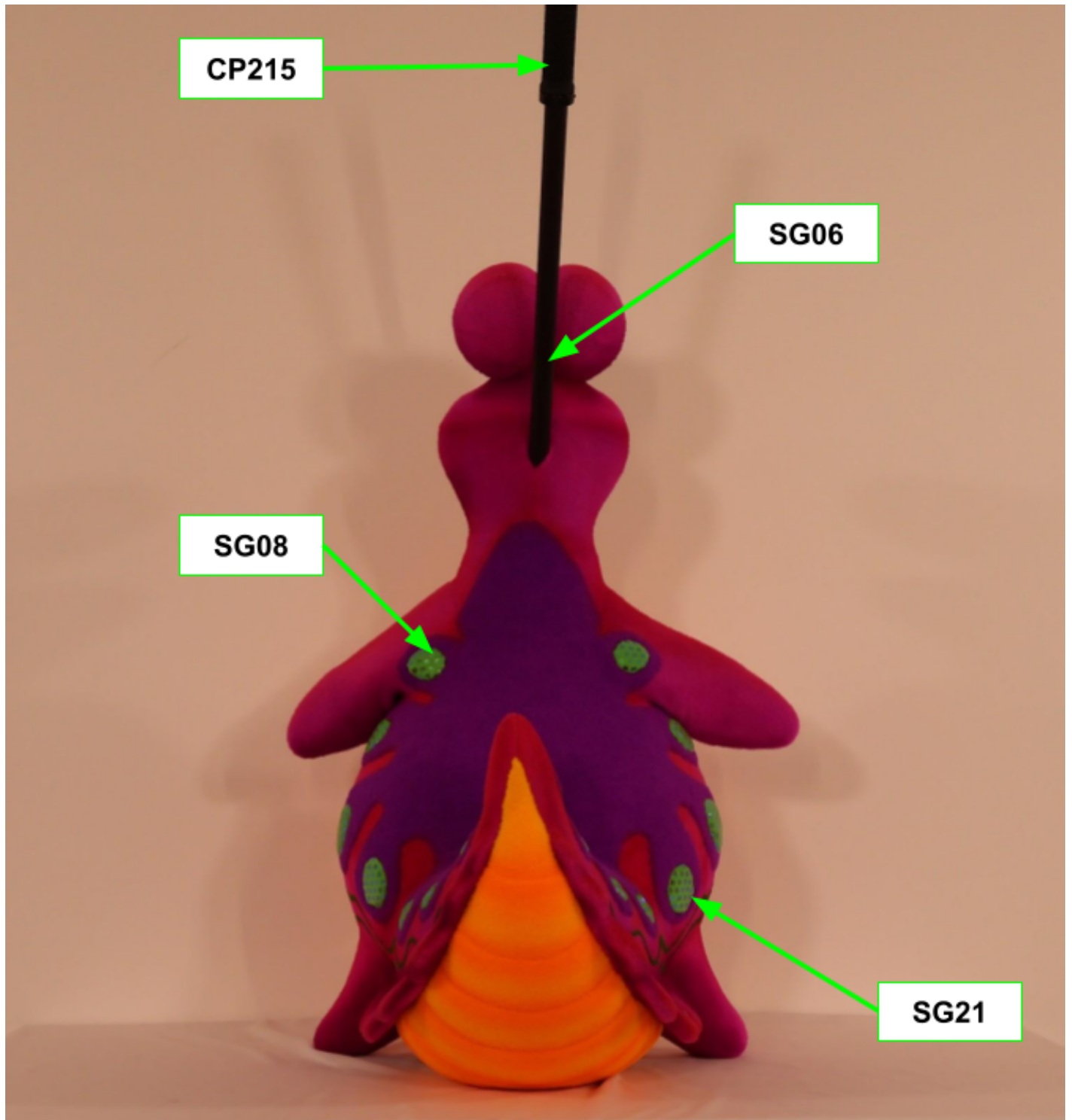
The Slugs are made of closed cell foam with painted 3D printed eyes. The arms are made of a combination of reticulated and closed cell foam to allow for sympathetic movement. A curved aluminum rod doubles as both handle and spine, allowing for some compression while maintaining the puppet's shape. The fleece covering, paints, and embellishments are all UV-reactive.

2 Construction and Assembly

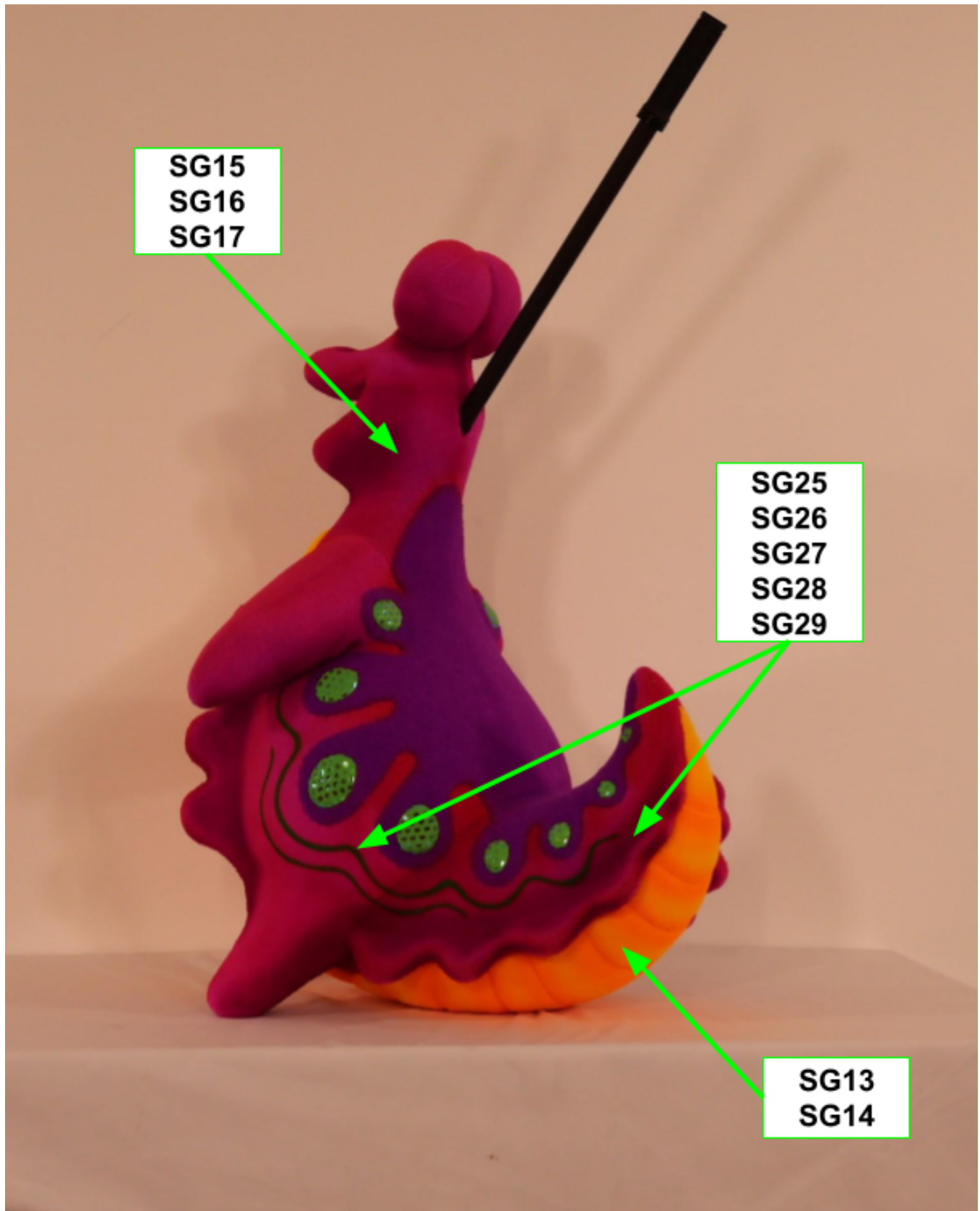
2.1 Front View



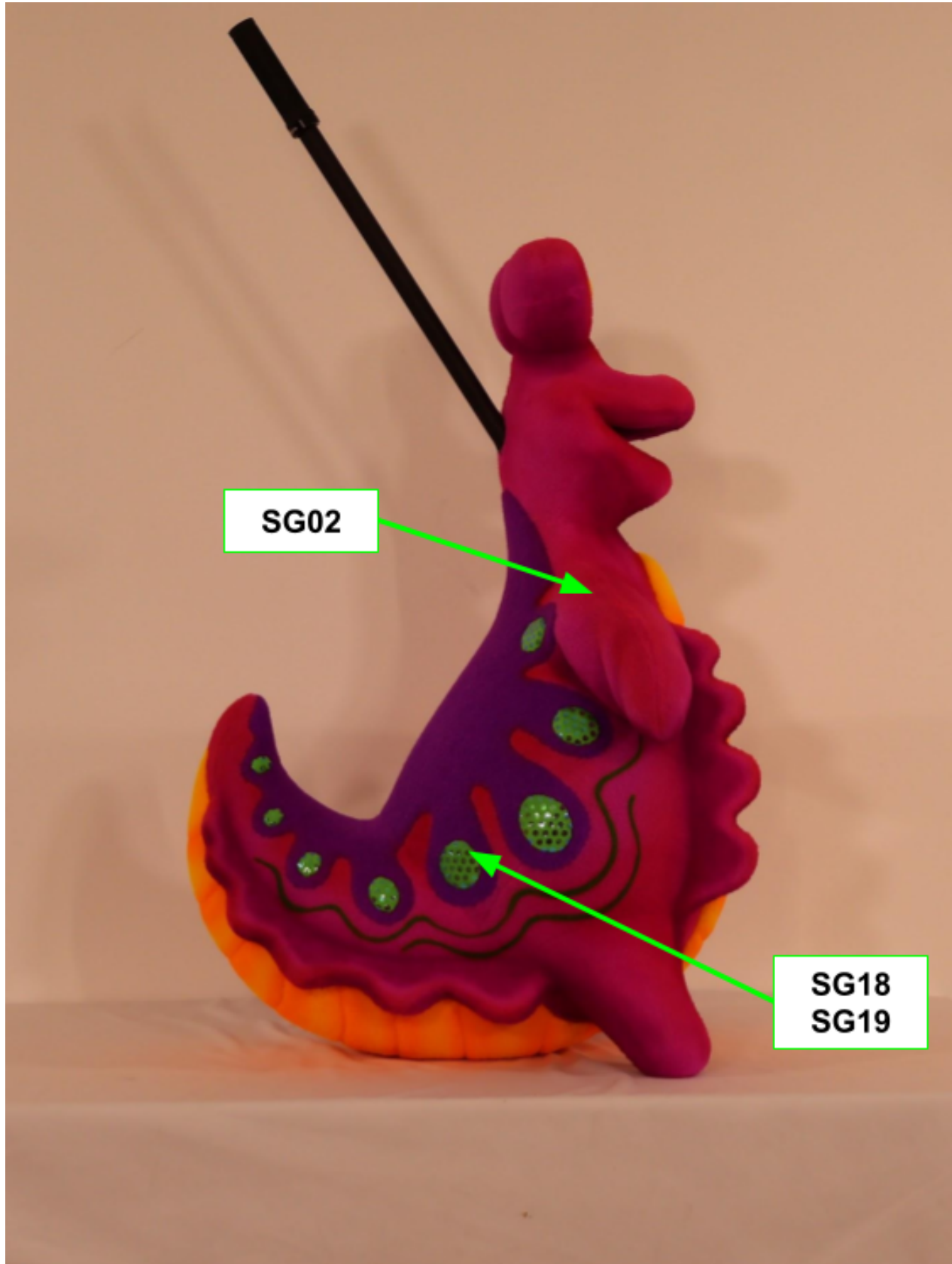
2.2 Rear View



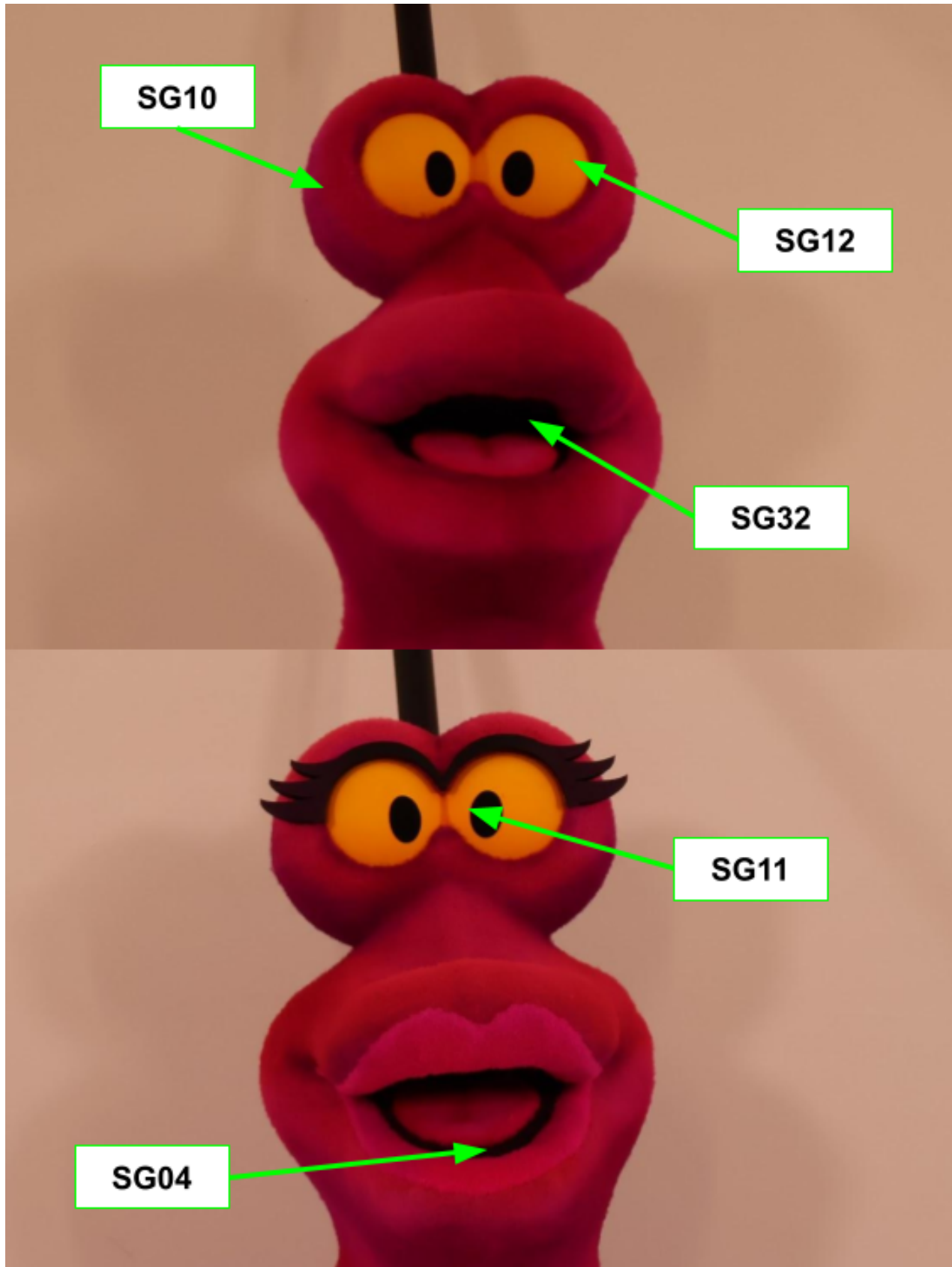
2.3 Left view



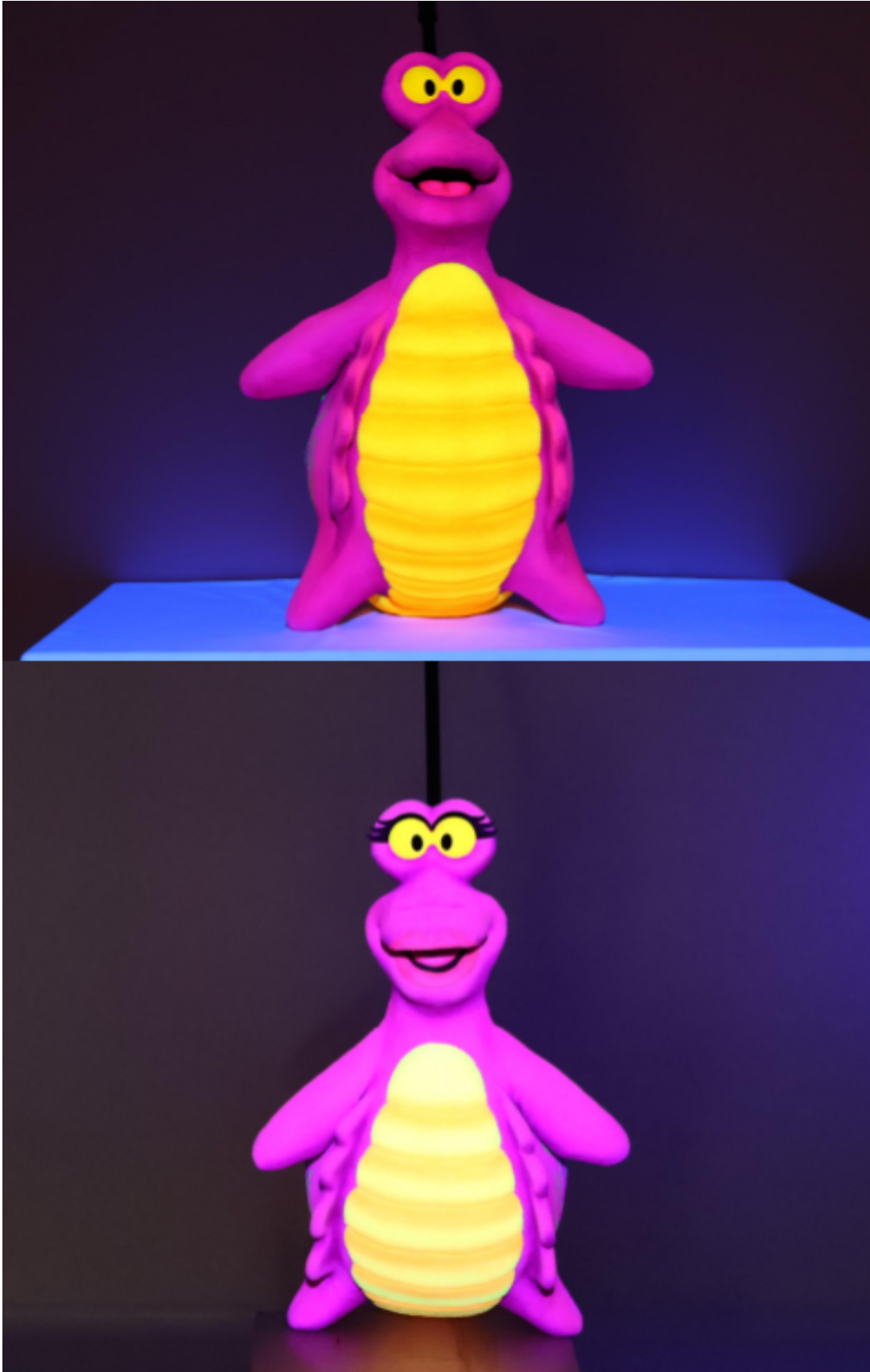
2.4 Right View



2.5 Closeups of Faces



2.6 UV Views



3 Description of Operating Modes

3.1 Operating Modes

3.1.1 Storage

The puppet will be stored on a stand during the show.

Between performances, the puppet should be covered with its custom cover in order to protect it from the elements.

At no point should a puppet be stacked on top of or underneath another puppet or prop.

3.1.2 Performance

The puppet is operated by a single performer. They should be able to do all performing actions without assistance.

3.2 Operating Procedures

3.2.1 Removing the puppet from the stand

Please ensure that you have clean hands before handling this puppet.

Holding the handle of the Slug with one hand, release the compression lever with the other and slide the Slug off the stand.

3.2.2 Action: Moving Hands

To move the Slug's hands, bounce the Slug slightly. They are weighted, so will move easily with the puppet's movement

3.2.3 Action: Moving Mouth

It doesn't. Please don't try to force it. You will break it.

3.2.4 Placing puppet on stand

To place the puppet on its stand, reverse the actions described in section 3.2.1

3.2.5 Storage

To store the puppet ensure that the puppet is stable on the stand and lower the cover over the top. Draw the string around the bottom of the puppet and pull the cord lock to secure it in place. The cover does not need to be cinched completely closed around the stand.



4 Detailed Diagrams of Mechanisms and Hardware

N/A

5 Safety and Hazards

5.1 Safety Precautions and Hazard Identification

As is the case with any puppet, care must be taken when handling this item to make sure that the item does not become damaged beyond normal expectations.

- Care should be taken that the puppet and its accessories do not crash against walls, doorframes, other props, or other items. This could cause the puppet to become damaged or soiled.
- If the hardware on the puppet becomes loosened, pieces of the puppet will be likely to behave erratically. Care should be taken to ensure that all hardware is present and properly tightened at all times.
- All electrical systems should be regularly checked and maintained to the utmost safety standards.

5.2 Hazard Mitigation Strategy

There is always a chance of breakage and small injury when handling puppets and props, but Monkey Boys Productions has done their best to keep these chances low and keep both performers and technicians safe. All items have been built to be safe to handle with little chance of injury when handled correctly.

- All carbon fiber parts have been sanded to a smooth surface and sealed or covered.
- All wires and other such electrical parts have been assembled in the most safe and logical way to avoid injury and avoid becoming a hazard to performers or technicians.
- Weights and distribution of weight have been thought through to make the carrying and handling of the props easier on the performers to avoid muscular injury or strain.

These puppets are not a hazard to the environment or the performance location.

6 Repair & Service

6.1 Daily Checks and Inspections

The following list is provided as a basis for daily inspection of the puppet. Items may be added to or removed from this list as the on-site technical director sees fit.

Check Point	How to Inspect
Belly & feet for dirt	Visually inspect the puppet
Eye paint	Visually inspect the puppet

6.2 Periodic Testing

The following list is provided as a basis for periodic testing of the puppet. Items may be added to or removed from this list as the on-site technical director sees fit.

Check Point	How to Inspect	When to Inspect
heat shrink tubing	visually and manually	weekly
seams	visually and manually	weekly

6.3 Routine Corrective Maintenance

The following list is provided as a basis for routine maintenance of items that will commonly need replacement or adjustment. Items may be added to or removed from this list as the on-site technical director sees fit.

Check Point	Corrective Action	When to Address
foot pads	Wipe clean with unscented baby wipe	As needed
UV paint	Touch Up	As needed

6.4 Puppet-specific Service Items

A basic service kit has been supplied for use with this specific prop. Refills of the items in this kit can be handled by direct purchase from the source or by emailing contact@monkeyboysproductions.com. A full manifest of these items is supplied inside the kit and is included on the final page of this manual.

6.5 Cleaning Fabrics

*****Please note that using liquids or detergents on UV treated fabrics may cause the UV reactivity to fade*****

6.5.1 Spot Cleaning

- Spot clean as soon as dirt and grime are noticed.
- Gently wipe with Shout or Tide wipe.
- Dab product into deeper stains.
- Blot and gently wipe with a clean, white towel.
- Make sure that the area dries well.

6.5.2 Deep Cleaning Option 1 for widespread stains

- Dilute a drop of Woolite detergent in room temperature water.

- Dab on with a white cloth.
- Gently wipe & dab with clean white towel.

6.5.3 Deep Cleaning Option 2 for deep stains

- Spray Bissell Pro Carpet Cleaner on worst of spot.
- Allow it to rest for 1 minute.
- Carefully dab and wipe with a clean towel, being mindful that fabric doesn't pull away from the material beneath.

6.5.4 In all cases

- DO NOT rub, twist, or pull when cleaning
- DO NOT use heat, steam, or pressure
- DO NOT use bleach or other harsh chemicals
- DO NOT immerse in or saturate with water

6.6 Cleaning Hard Surfaces

*****Please note that using liquids or detergents on UV treated surfaces may cause the UV reactivity to fade*****

- Hard surfaces (Carbon fiber, plastic, aluminum, grip tapes, etc.) can be wiped clean with water or a mild cleanser such as Dawn dish detergent diluted in water.
- Always use a soft cloth and work carefully to avoid scratching or damaging any coatings or paints.
- Always wipe all surfaces dry immediately after cleaning to avoid leaving water spots or otherwise damaging finishes.

7 Detailed Maintenance Procedures

N/A

8 Comprehensive Parts List

8.1 Understructure and Base

Part #	Part	Usage	Vendor	Vendor Part ID
SG01	L200	main body, leg, arms, tail, and head	Foamfactory	XPE2
SG02	reticulated open cell foam	arm connections	Foamfactory	SFF
SG03	1/2" bra foam	slug belly	Coastpad	CPIT100010
SG04	1/8" craft ply	mouthplate	Lowes	#12224

8.2 Hardware

Part #	Part	Quantity	Usage	Vendor	Vendor Part ID
SG05	Aluminum tube		handle	McMaster-Carr	9056K66
SG06	1" black heat shrink tubing		handle	Amazon	B08W8B3Q4T
CP215	cp 215		handle	Amazon	GP-BK-15 (AISN - B07XXR9CMF)

8.3 Fabric and Fibers

Part #	Part	Usage	Vendor	Vendor Part ID
SG07	F3 Fleece	main body, head, arms, legs, and tail covering	Dharma	F3F
SG08	green spandex	green bump details	spandexworld	n/a
SG09	White nylon thread	most stitching	cricut/Michael's crafts	n/a

8.4 Custom Made Parts

Part #	Part	Quantity	Usage	Vendor	Filename
SG10	3D printed, custom eye mask	1	upper head of Slugs, barged into foam base	Lo M	**All Slug Files in the Box Drive here:

					https://disney.box.com/s/epw-wwpcza41nfhnkdlu1ht87nqlu5jjs
SG11	3d Printed eyeballs	1		Lo M	

8.5 Paints and Dyes

SDS sheets are available in the separate SDS Project Packet.

Part #	Part	Usage	Vendor	Vendor Part ID
SG12	wild fire paint	slug eyes		
SG13	640 Flo. Yellow (Neon)	Dye - Stomach	Dharma Trading Co.	640
SG14	456 Fluorescent Safety Orange	Dye - Stomach	Dharma Trading Co.	456
SG15	645 Blacklight Blue (Neon)	Dye - Body	Dharma Trading Co.	645
SG16	623 Brilliant Blue (Primary)	Dye - Body	Dharma Trading Co.	623
SG17	406 Fluorescent Fuchsia (Primary)	Dye - Body	Dharma Trading Co.	406
SG18	479 Radioactive (fluor.)	Dye - Green Spots	Dharma Trading Co.	479
SG19	627 Brilliant Kelly Green	Dye - Green Spots	Dharma Trading Co.	627
SG24	Modern Masters OPTICAL WHITE	Body Shadows & Decal	Aamzon	WF19106
SG25	Createx Wicked Colors W210 Glow Base	Body Shadows & Decal	Amazon	W210
SG26	Wicked Colors – W028 Fluorescent Blue	Body Shadows & Decal	Airbrush Paint Direct	W028
SG27	Wicked Colors - Fluorescent Purple 0020	Body Shadows & Decal	Amazon	W020
SG28	Wicked Colors - Fluorescent Magenta 0029	Body Shadows & Decal	Spray Gunner	W029
SG29	Wicked Colors - Fluorescent Raspberry	Body Shadows & Decal	Spray Gunner	5402
SG30	Wicked Colors - Fluorescent Green	Body Shadows & Decal	Spray Gunner	5404
SG31	Wicked Colors - Fluorescent Sunburst	Body Shadows & Decal	Spray Gunner	5410
SG32	Createx Wicked Colors Fluorescent Red W022	Mouth Pallet	Amazon	W022

8.6 Glues, Treatments, Coatings, and Chemicals

SDS sheets are available in the separate SDS Project Packet.

Part #	Part	Usage	Vendor	Vendor Part ID
SG20	barge	all foam	Frankford Leather	BAPCPAR
SG21	Translucent Red Cricut iron on vinyl	Sparkle dots on green bumps	cricut/Michael's crafts	
SG22	Superglue	nylon printed eyes	Amazon	
SG23	Insta-Shield Flame Retardant	Fire treatment	Northeast FireShield	N/A