



# MONA THE MOON MOTH

By Rebekah Crowmer

USA

Moon Mascot: Artemis II ZGI Design Challenge

## MAJOR PARTS

- ★ ANTENNAE
- ★ UPPER WINGS
- ★ BODY
  - ★ HEAD
  - ★ EYES
  - ★ RUFF
  - ★ LEGS
- ★ LOWER WINGS (X2)
- ★ MOON BALL

## MATERIAL LIST

- ★ KEVLAR CORD  
~ LEGS, ANTENNAE VEINS
- ★ NOMEX THREAD  
~ EMBROIDERY, STITCHING,  
WING VEINS
- ★ COTTON  
~ BODY BASE, WING BASE
- ★ FAUX FUR  
~ RUFF COLLAR, ANTENNAE BASE
- ★ VINYL  
~ EYES
- ★ BETA CLOTH  
~ MOON BALL
- ★ POLY-FIL  
~ WINGS, BODY, MOON
- ★ FABRIC TRANSFERS (MAYBE)  
~ STARS, CRATERS

## COLOR KEY

ANTENNAE   
INNER OUTER

BODY 

WINGS   
GRADIENT GRADIENT  
INNER OUTER

EYES 

KEVLAR CORD 

MOON 

## MONA THE MOON MOTH

~Front View~

by Rebekah Crowmer



## Description

Mona is a brave little Luna moth who dreams of visiting the moon. Her wings represent the verdant greens of Earth, with the inside turning into a dark, starry sky in pursuit of the moon.

She can wrap her wings around the little moon she carries, giving it a loving hug from the Earth.

The blue border on the top of Mona's wings represents the horizon of the Earth in the Artemis II emblem and the red of her antennae as the red swoop.

Front Expanded View and Measurements

\*slight warping in art to fit 6x6x6" limit

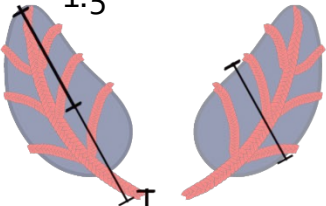
Apex of Wings,  
Horizontal: 6"



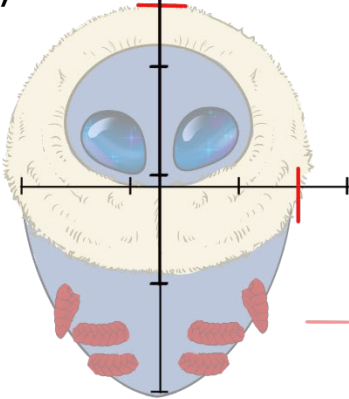
Height from Antennae to  
Hindwing Tails: 6"

Head  
Length: 1.5"  
Width: 2"

Antenna  
Length: 2"  
Width: 1" to 1.5"



Eyes: 0.5"



Body Length: 3.5"  
Body Width: 2.5"

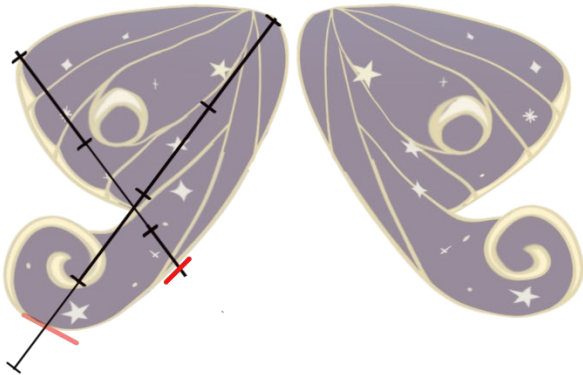
Blue Border Girth:  
1/2"

Height of  
Forewings: 3.5"



Hindwing Width  
(without tail): 2"

With Tail: ~2.5"



Hindwing at  
longest point: 3.5"



# MONA THE MOON MOTH

~Side View~

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Antenna core is more rigid than legs  
but still flexible and floppy

Gold Thread Stitching  
for wing veins

Larger Spirals at the top and  
on the bottom of hindwings  
on both sides

Eye spots on the hindwings

Antenna base is two-toned  
front and back

Blue Border has some  
volume to it

Ruff completely  
encircles the neck

Six Red Kevlar Cord  
legs total

Only top two extend out  
longer and attached to  
sides of Moon Ball

Bottom two sets flush  
against body

Wings are two-toned!

Interior is Space-Themed

Exterior (back) is Luna Moth  
Earth Colors

Top blue border remains  
the same on both sides

Wings larger than body

Anchored to the center back  
of the body

Moves in Zero G

Can hug the Moon ball

Gold-yellow border  
around edge of wings  
separating Space-Earth  
sides

\* Antennae, Moon, and Wings  
interact with Zero G

Moon Ball is a mini-model of the real moon  
Simplified shapes for craters

## More Notes

- Red Kevlar cords, Moon, and Wings mobile/ interactive in Zero G.
- Only Top Legs sewn into Moon ball.
- Bottom legs shorter and stitched against body.
- Antenna body need not be stuffed; 2 pieces of short faux fur with the cords stitched over it.

Side Expanded View and Measurements

Head protrudes ~0.5"

Wings stuffed to about 0.5"

2" antenna  
~0.5" before  
meeting the base

Ruff width 1"

Full extension from  
body to moon:  
5-6"

1.5" tether  
for first leg  
set attached  
to moon

Smaller Legs flush  
with body ~0.5"

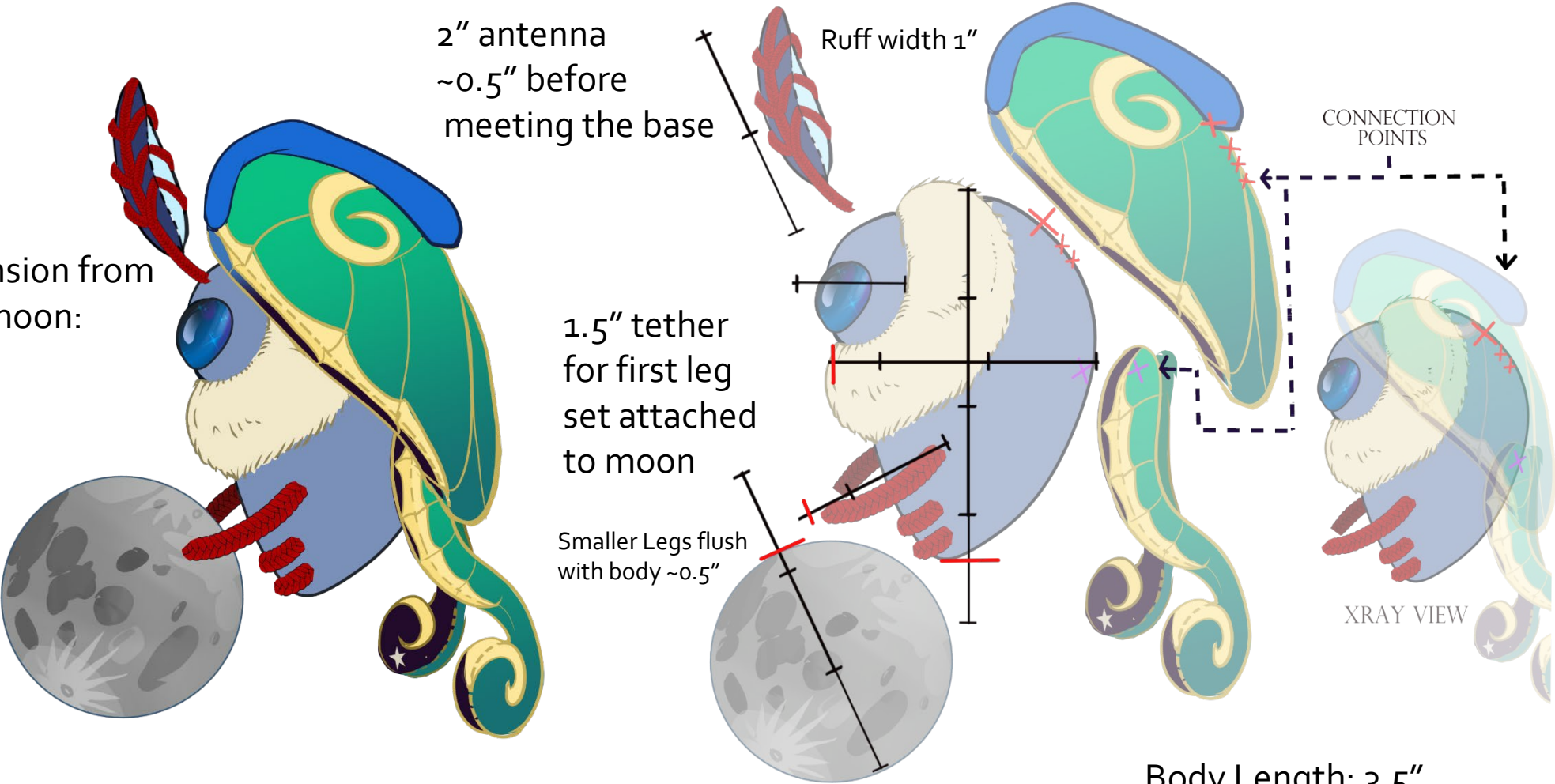
CONNECTION  
POINTS

XRAY VIEW

In this view, wings are straight toward viewer  
\* Wings will have full range of motion

2-2.5" radius moon ball

Body Length: 3.5"  
Body Width: 2.5"



Wing Spirals and  
Eye Spots  
based on the  
American moon moth  
(*Actias luna*)

Back of wings have a Blue-Green gradient

Also representative of the Earth

Wings larger than body

Anchored to the center back  
of the body

## Moves in Zero G

Can hug the Moon ball

No stars on the exterior of wings

- A loop can be attached on the middle back or on the moon ball to tether to the ship's interior.

Back Expanded View and Measurements

Apex of Wings,  
Horizontal: 6"

Body Length: 3.5"  
Body Width: 2.5"

Blue Border Girth:  
1½"

Antenna  
Length: 2"  
Width: 1" to  
1.5"

Height of  
Forewings: 3.5"

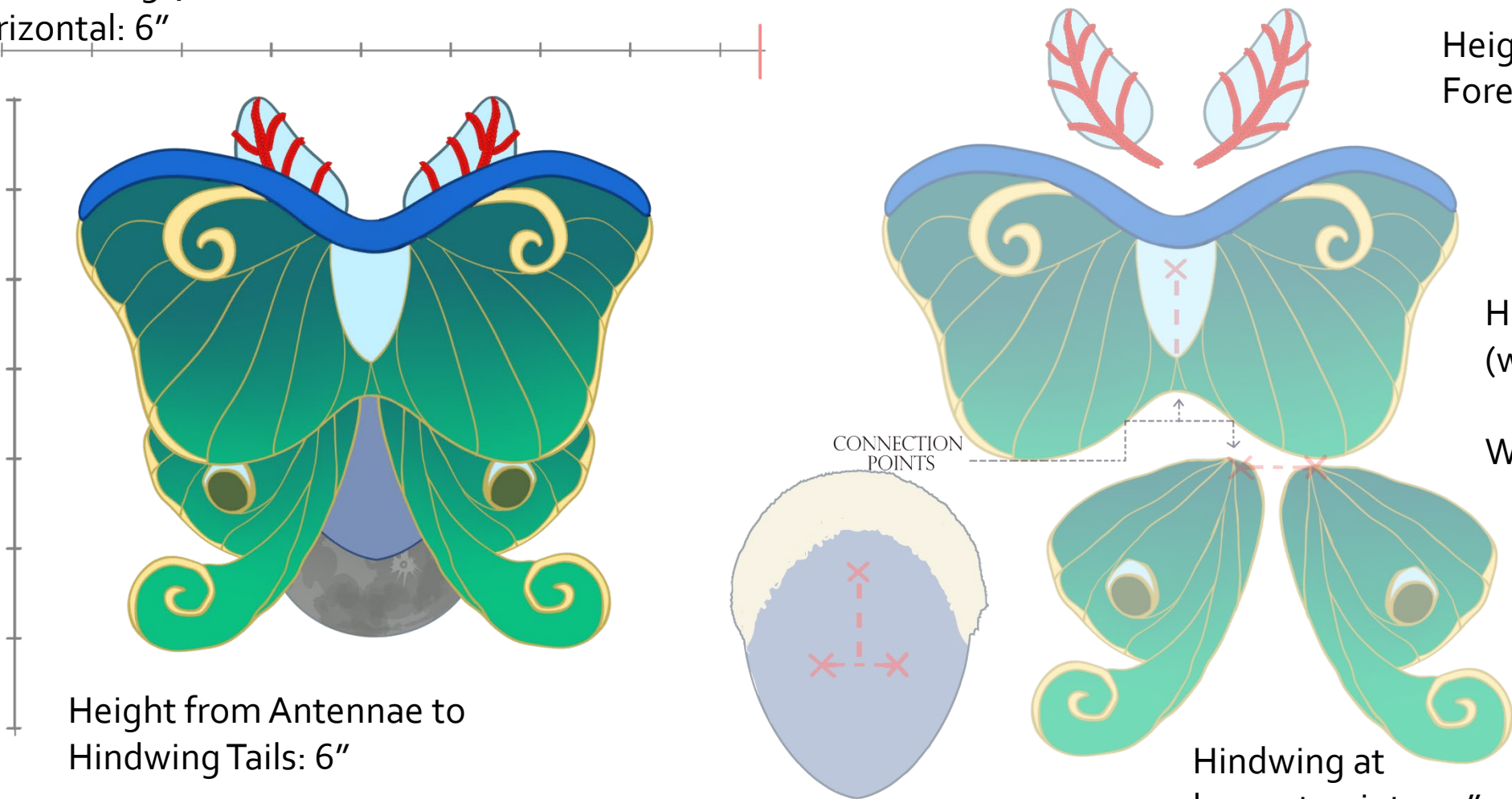
Hindwing Width  
(without tail): 2"

With Tail: ~2.5"

Height from Antennae to  
Hindwing Tails: 6"

CONNECTION  
POINTS

Hindwing at  
longest point: 3.5"





# Prototype Flat Sewing Pattern

I wanted to include this in case it comes in handy to better see the details.

I made a prototype to test the 6x6x6" enclosure space, but decided to change the overall size anyway.

I am not great at sewing, but it was a fun project!

