

Take us  
to your  
leader!

Bridge  
Robots

in

Space

Stuart Nielsen

Dedicated to Kori!



Emma

Maggie

More books at  
[www.bridgerobots.com](http://www.bridgerobots.com)



Dedicated to

Emma



Emma and Maggie are finishing up their latest bridge project when they receive an urgent call.



Emma this water bridge should help with traffic.

# BBR Facts!

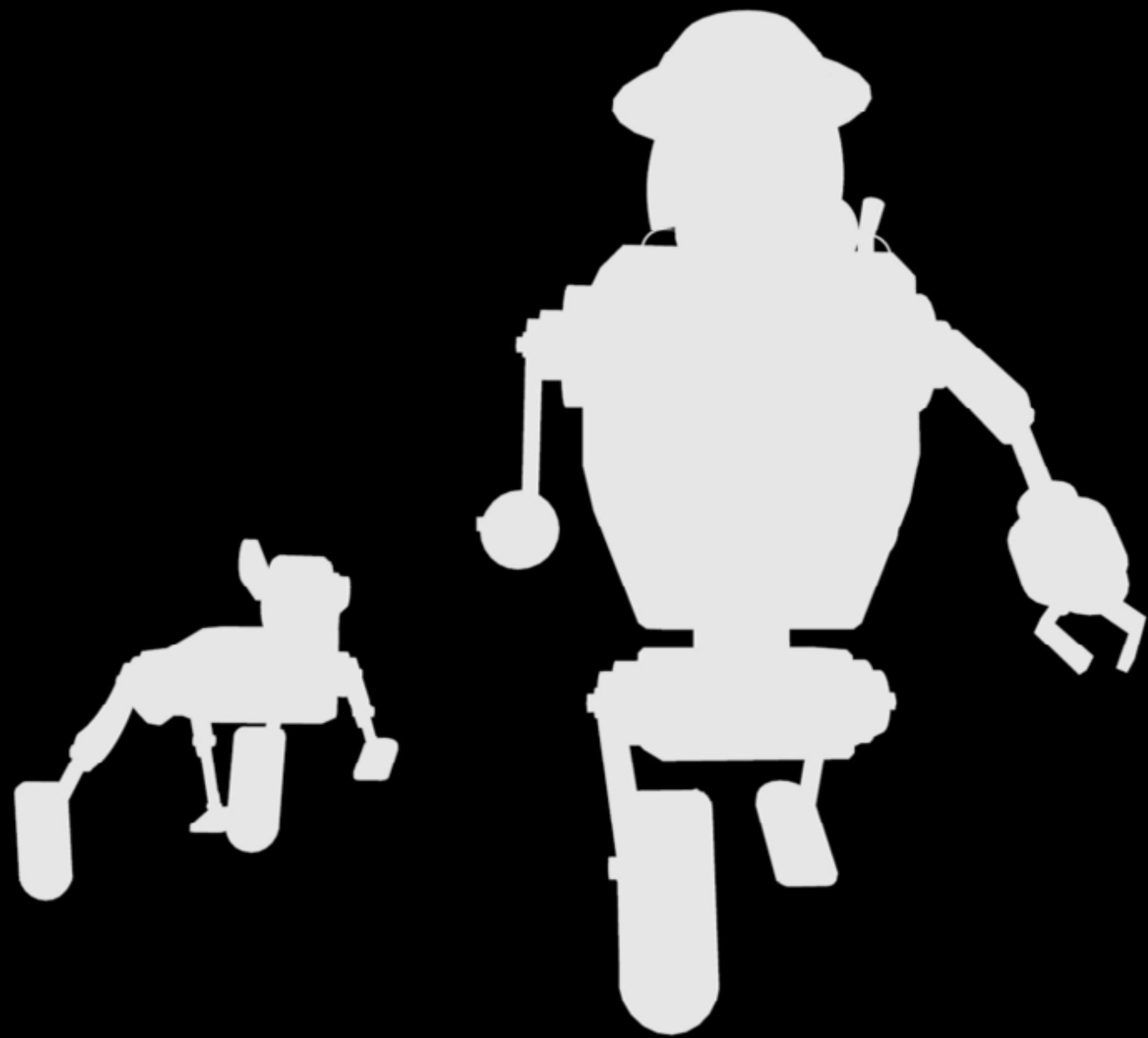


Bridges that help wildlife cross over busy roadways have been built across the world.

In Banff, Alberta, Canada, deer, elk, black bears, grizzly bears, mountain lions, wolves, moose, and coyotes have all used bridges to cross over the highway!

Search "Wildlife Crossing Bridge"

We have to get back to  
base, we have another  
bridge emergency!





Maggie and Emma  
arrive at Spaceship  
Island.





Help! Calling BBR Help!  
Help! Calling BBR Help!  
Help! Calling BBR Help!

A distress call,  
from Space!

The inhabitants of Brunel6  
are asking for our help.

It seems something keeps  
destroying their bridges!







Countdown!  
10..9..8..

Emma and Maggie  
board the rocket.

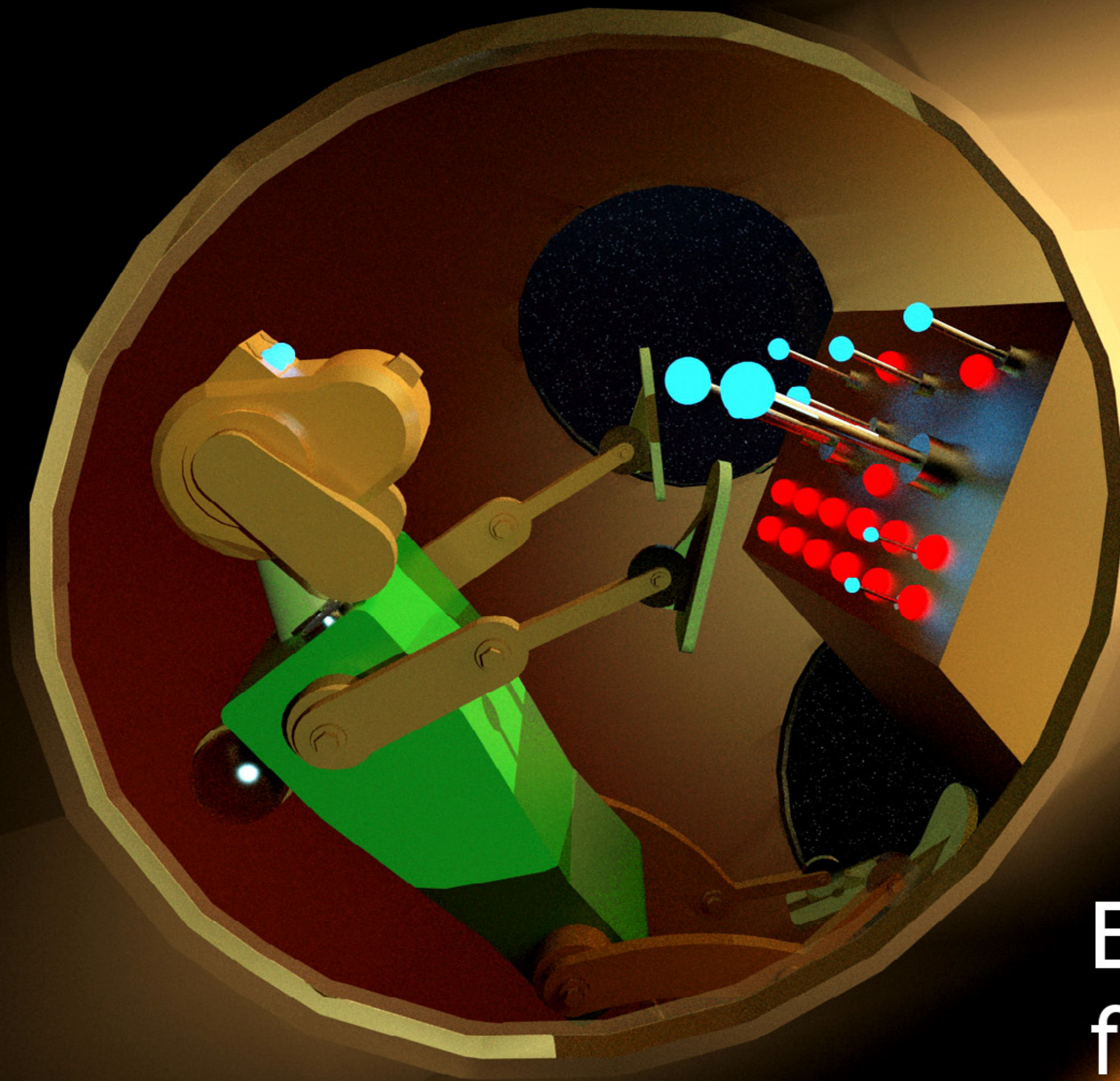


7..6..5..4..



3..2..1..Liftoff!





Emma heads  
for Brunel6.



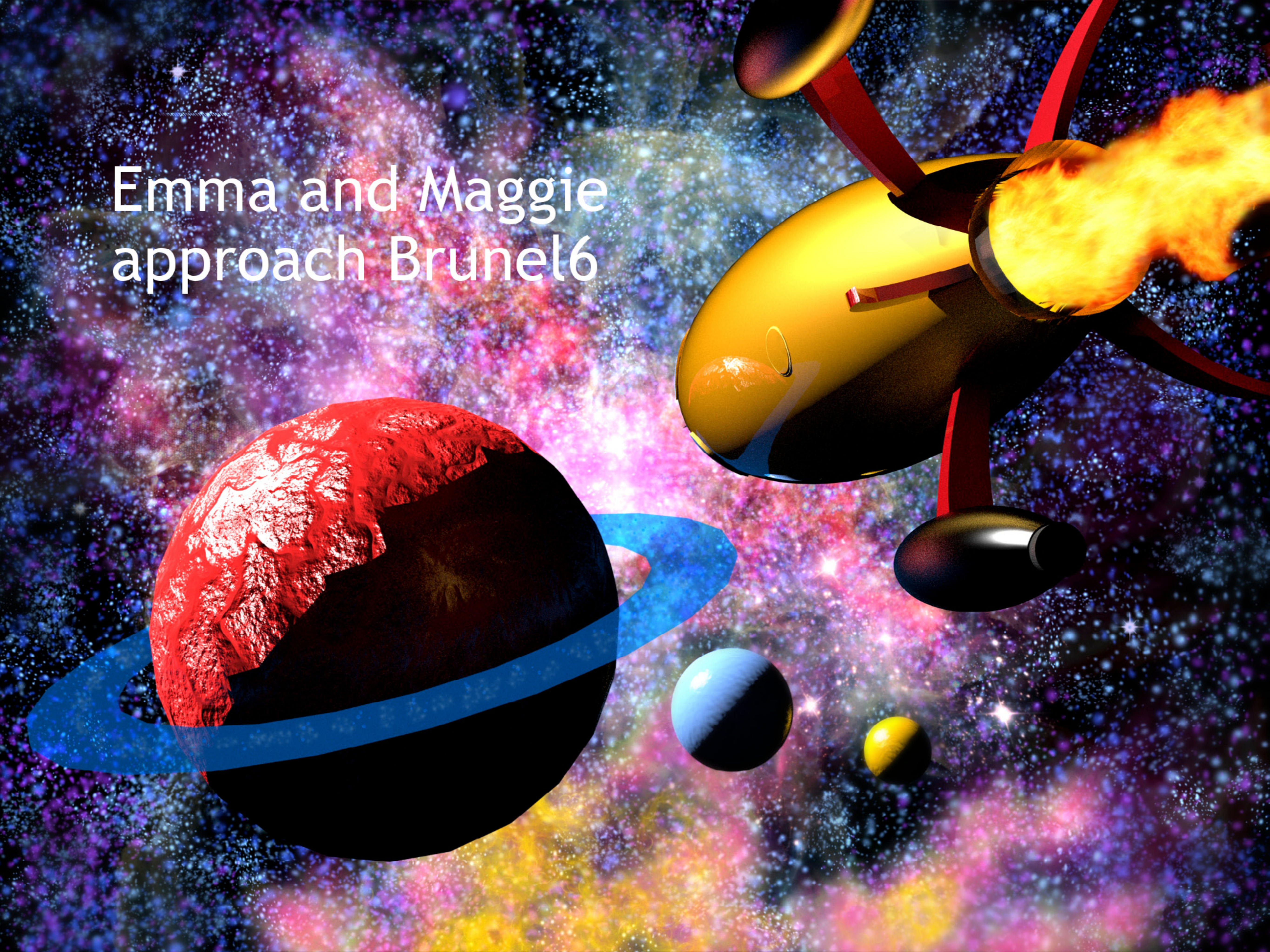


Emma takes a  
break and goes  
for a space walk.



In Space no one  
can hear you Bark.

Emma and Maggie  
approach Brunel6

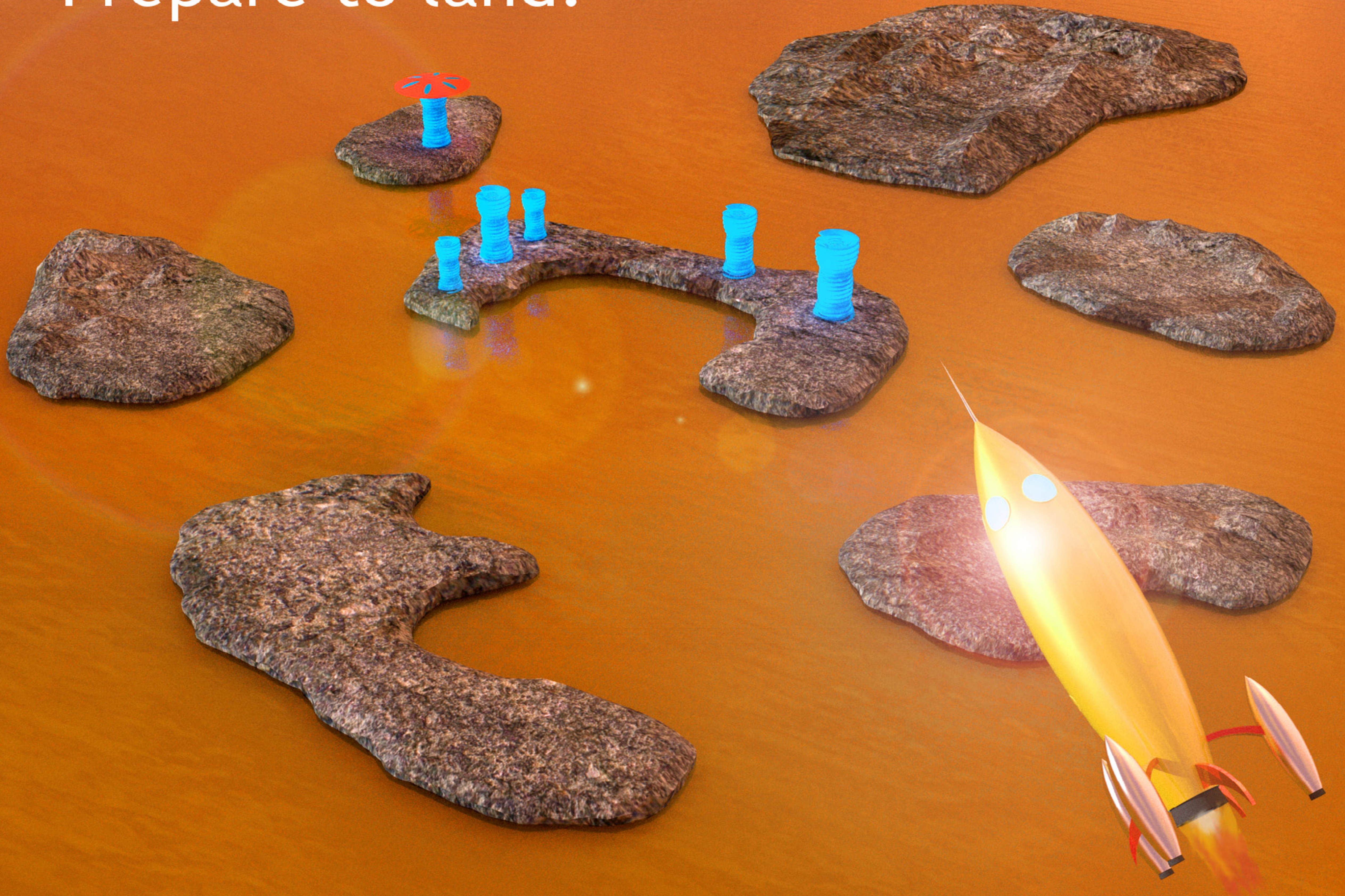


Brunel6 is covered



in island chains.

# Prepare to land!

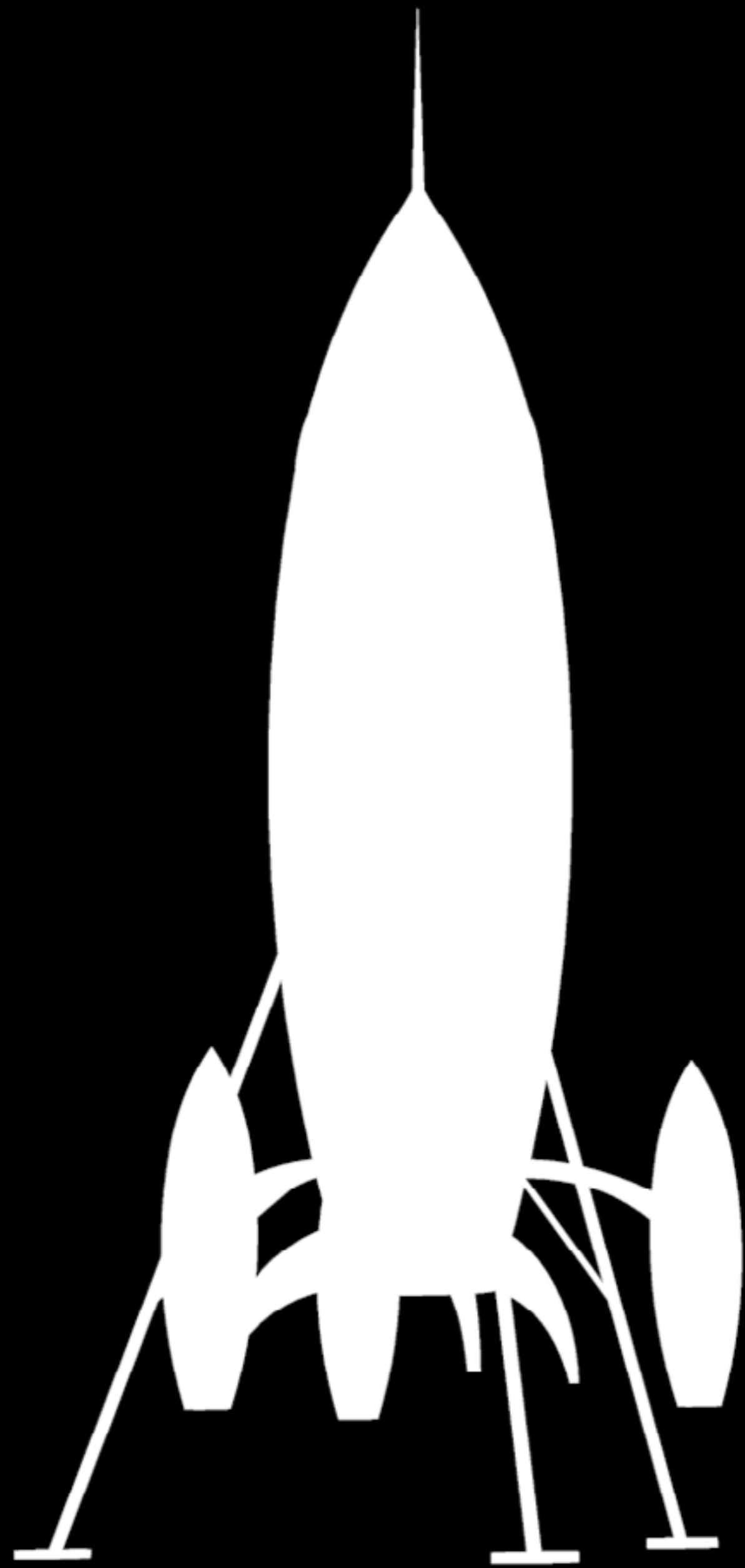




Touchdown!

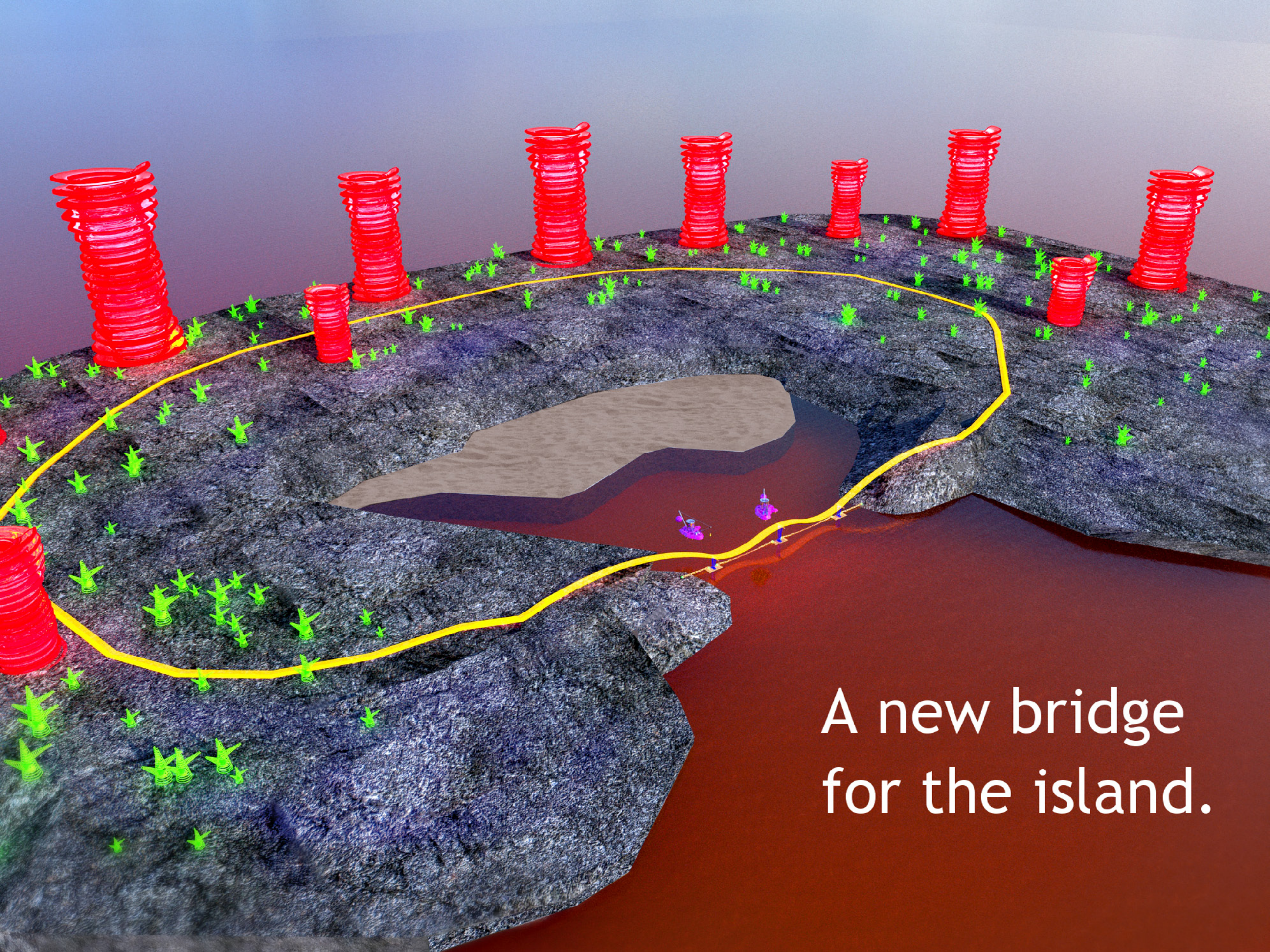


Welcome!



A floating bridge we  
were building was  
destroyed by  
unknown forces.





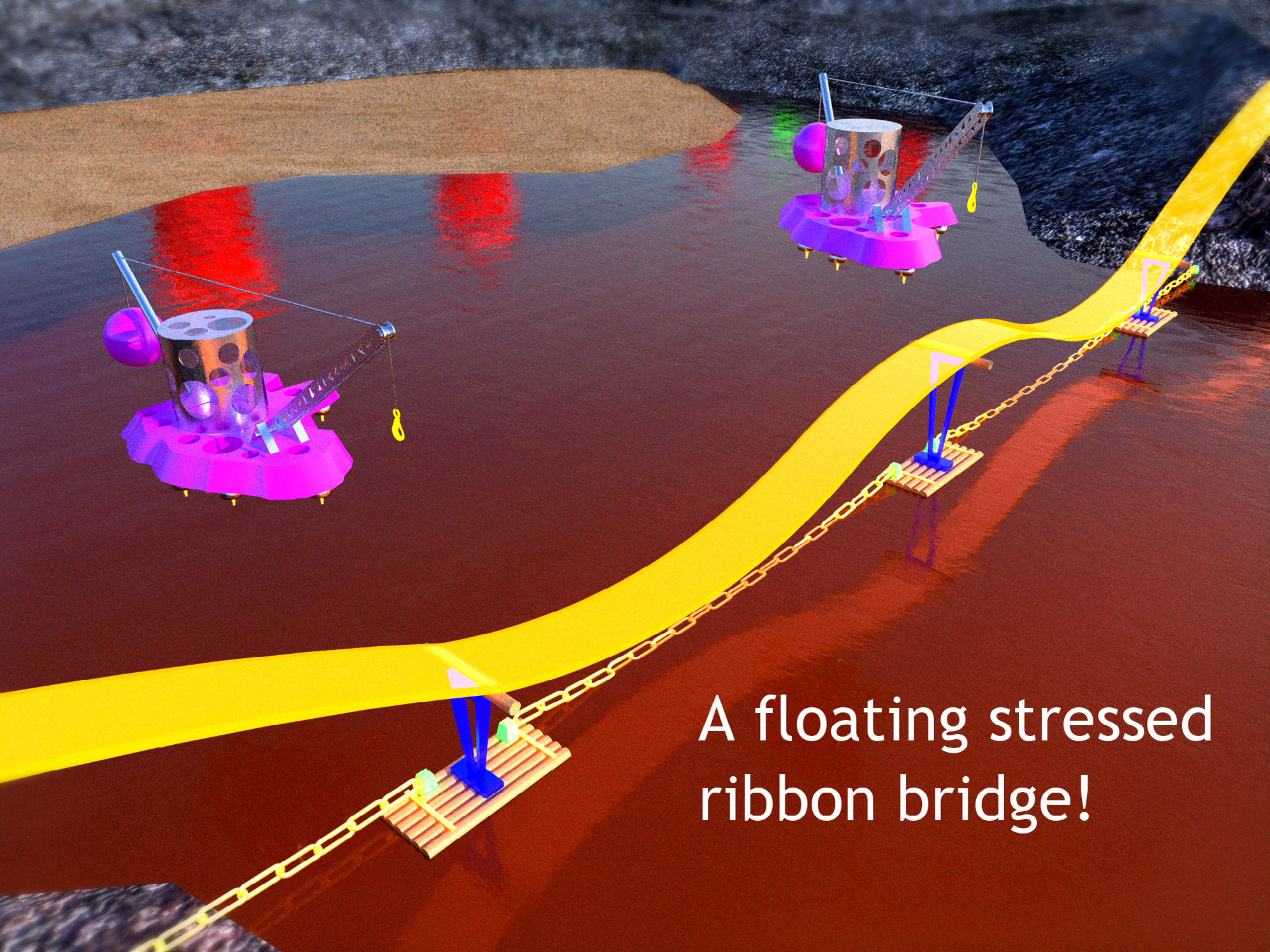
A new bridge  
for the island.

# BBR Facts!



Floating Bridges have been used for centuries and are typically built where the soil under the bridge is too far away from the water surface or too soft to support a bridge.

Search "Bergsøysund Bridge"



A floating stressed ribbon bridge!

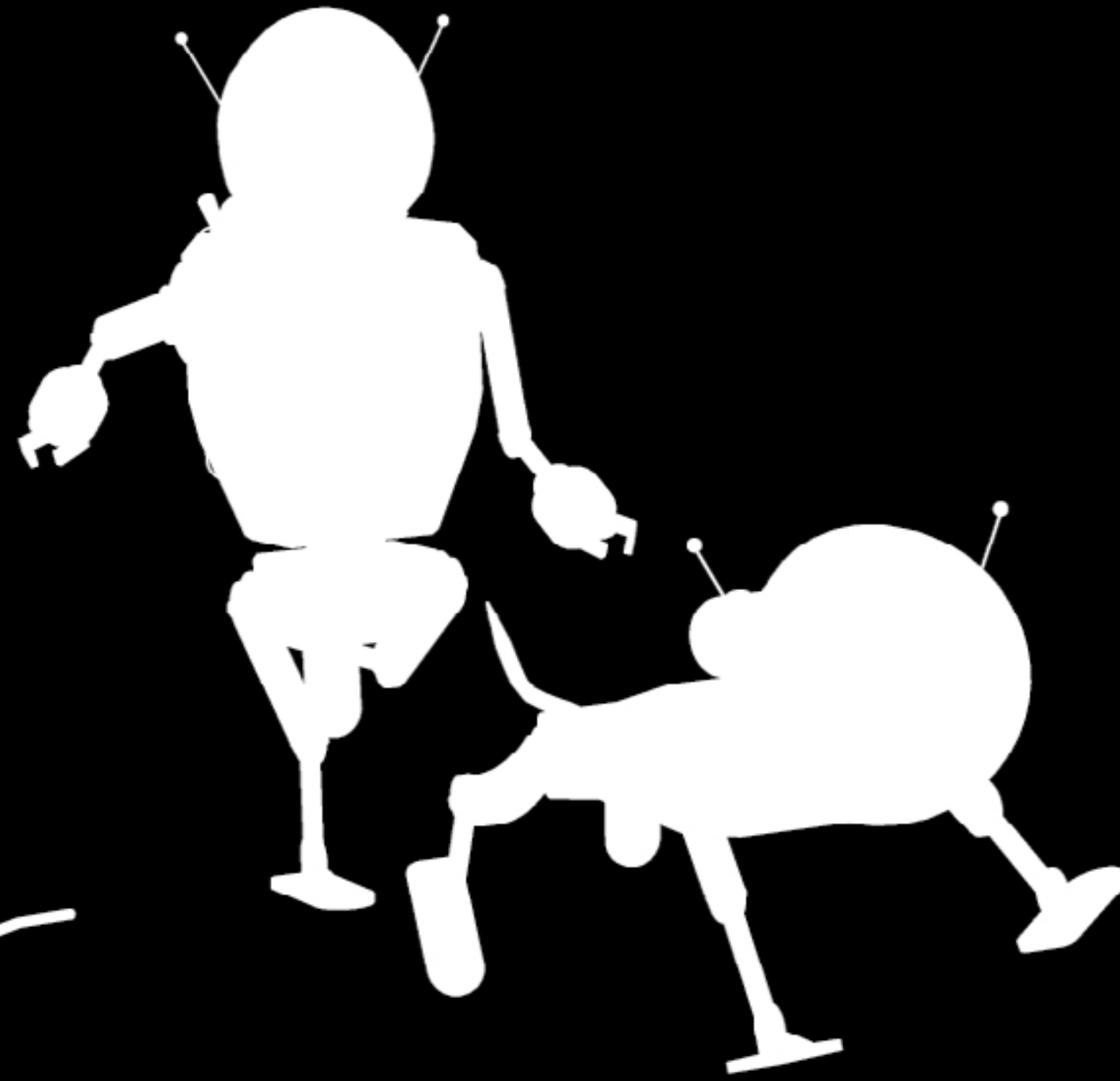
# BBR Facts!



Stress Ribbon bridges are fairly rare but they do exist.

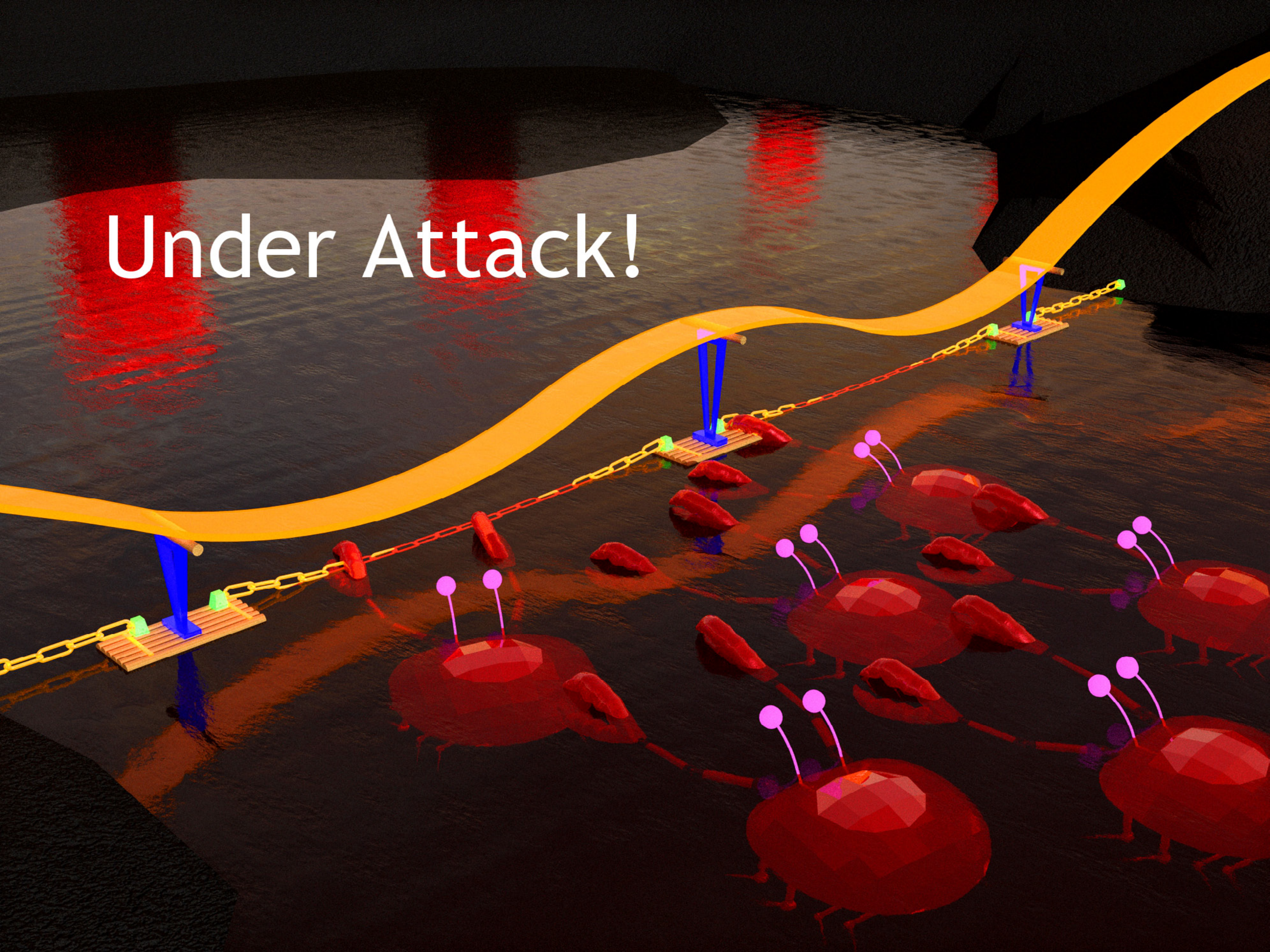
Like a suspension bridge, stress ribbon bridges use cables to support the bridge.

Search "Stress Ribbon Bridge"



Late at night something  
attacked the bridge.

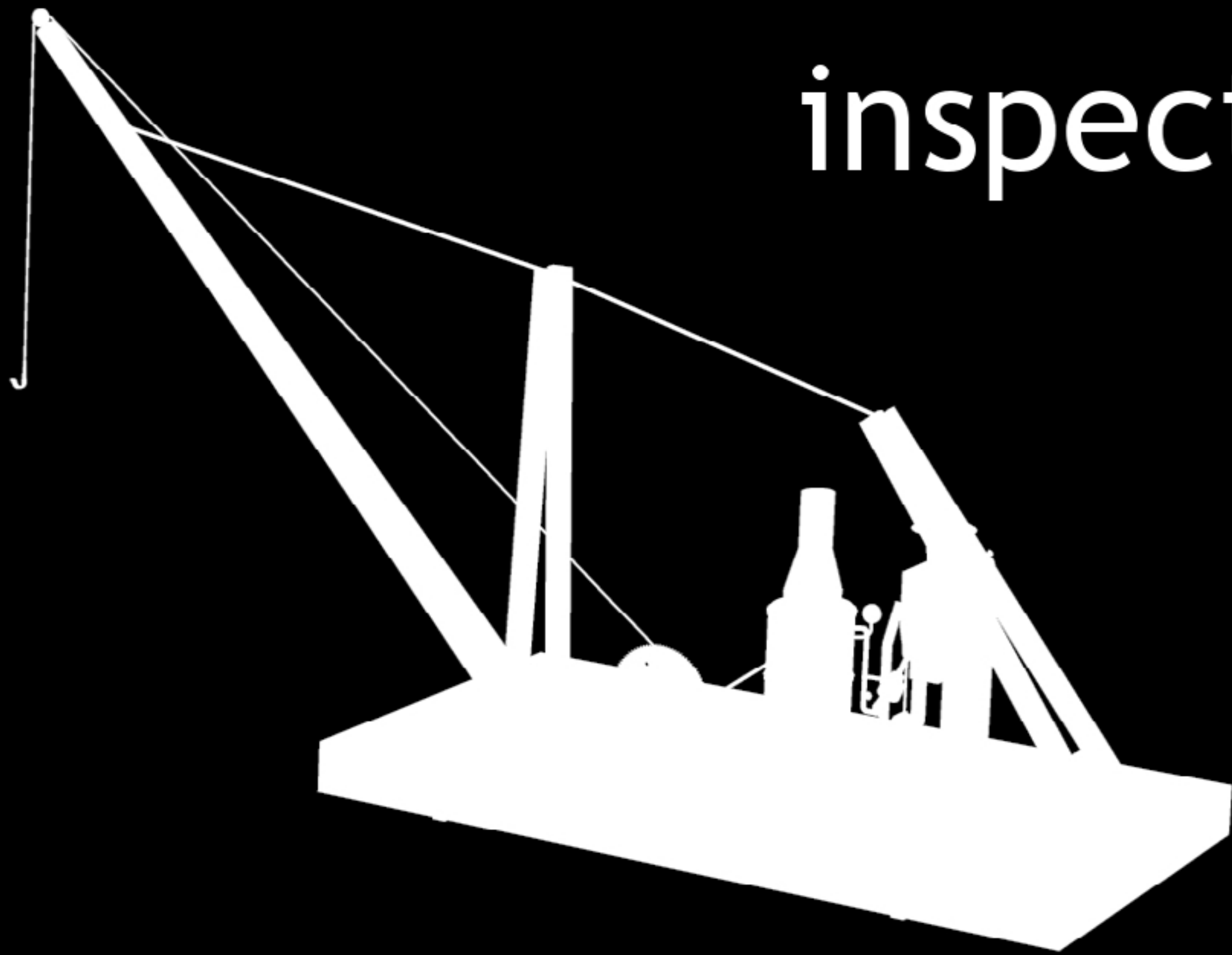
# Under Attack!



Destroyed!



We can provide you  
with a ride to the  
island so you can  
inspect the damage.



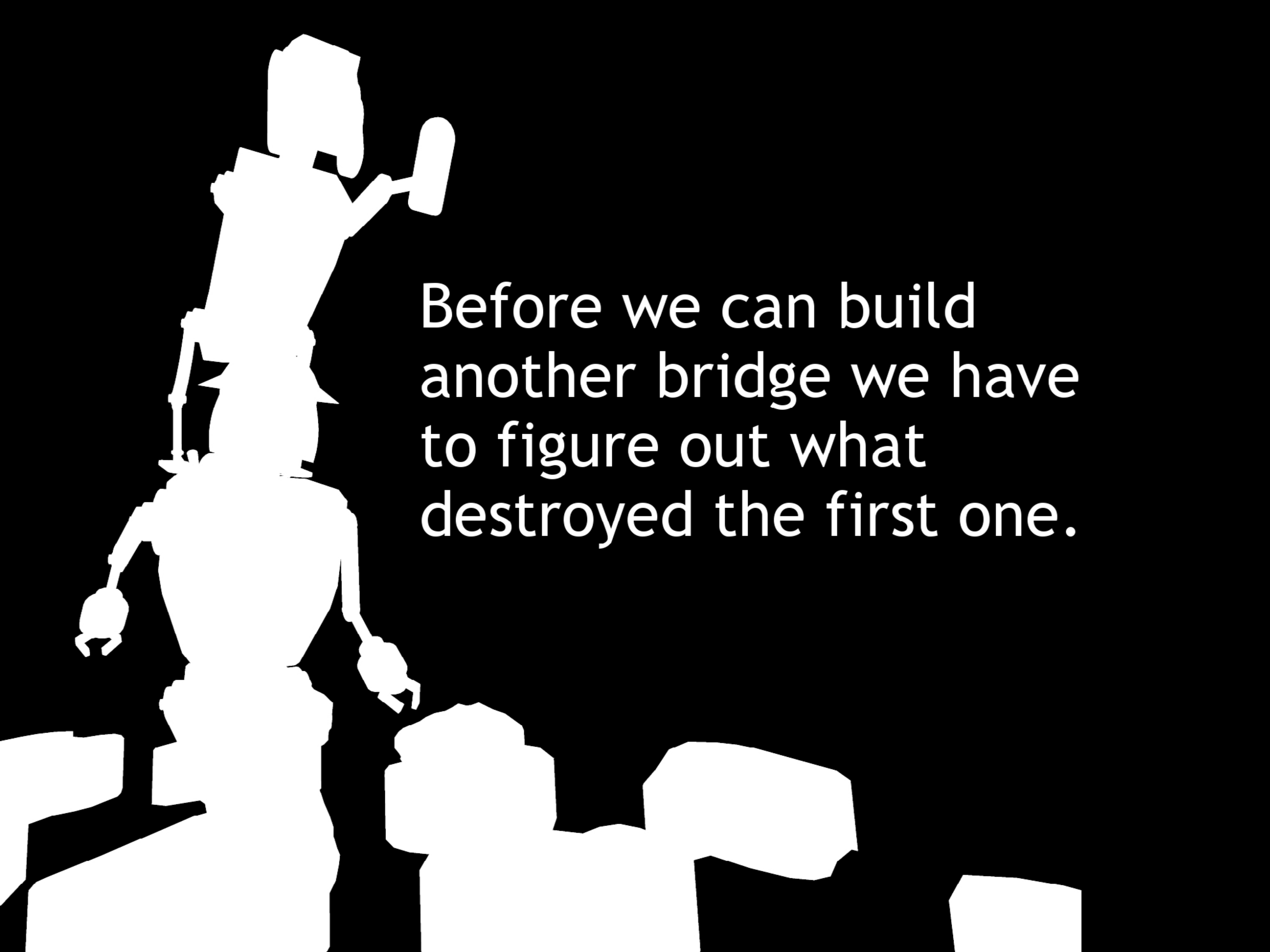


Emma this is  
the only way  
to travel!





We will need a  
new bridge.

A white silhouette of a construction worker on a bridge under construction against a black background. The worker is standing on a partially completed bridge structure, holding a tool in their right hand. The bridge consists of several rectangular blocks of varying sizes, some of which are missing or broken, suggesting a collapsed or damaged structure. The worker is positioned on the left side of the frame, looking towards the right.

Before we can build  
another bridge we have  
to figure out what  
destroyed the first one.

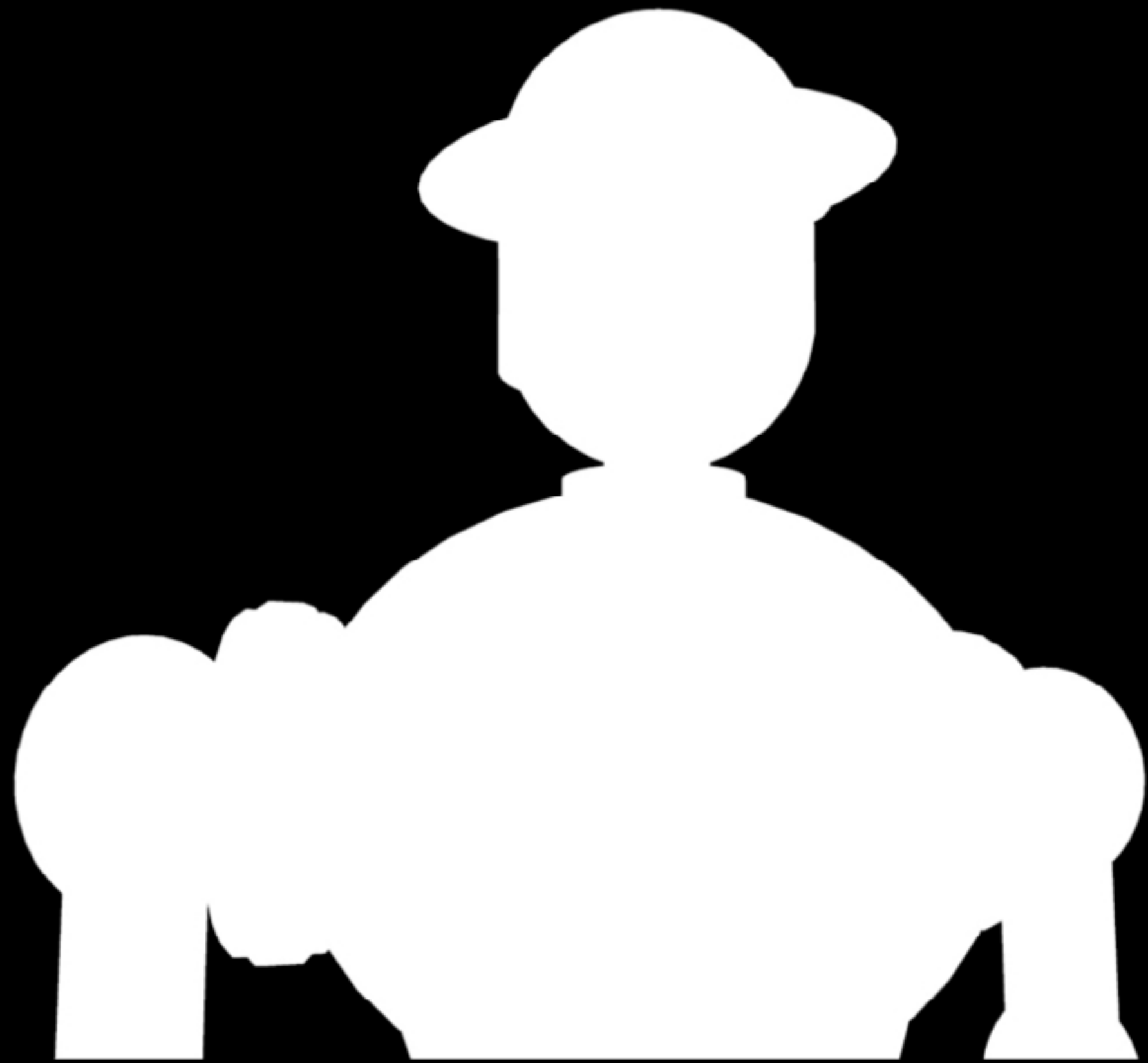


Thanks for helping us.



We believe they  
came from there.

I have a friend who  
can give you a ride.



Emma do you  
see anything?





I think we found  
the problem.



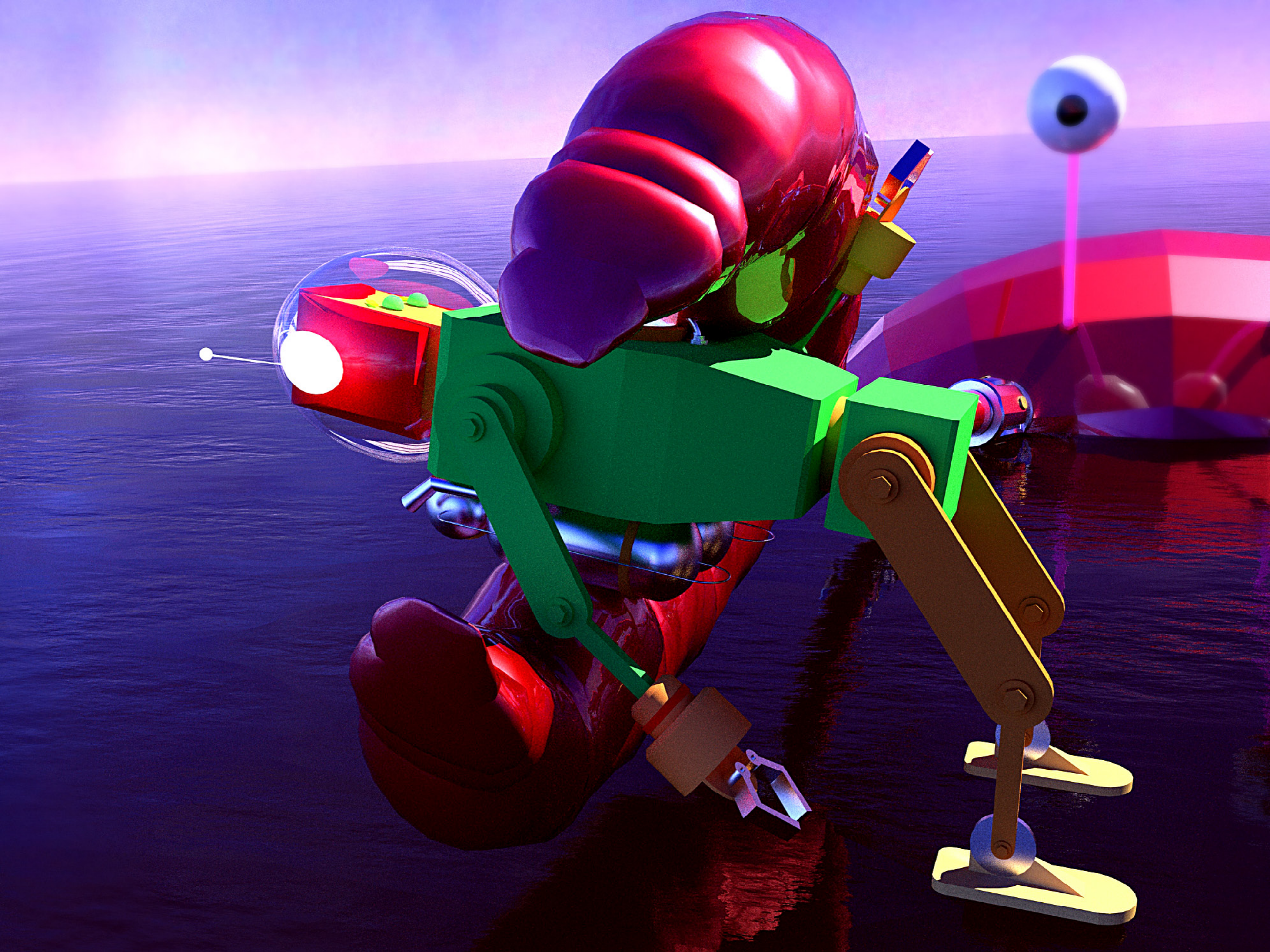


Emma do you speak  
"Giant Crab"?



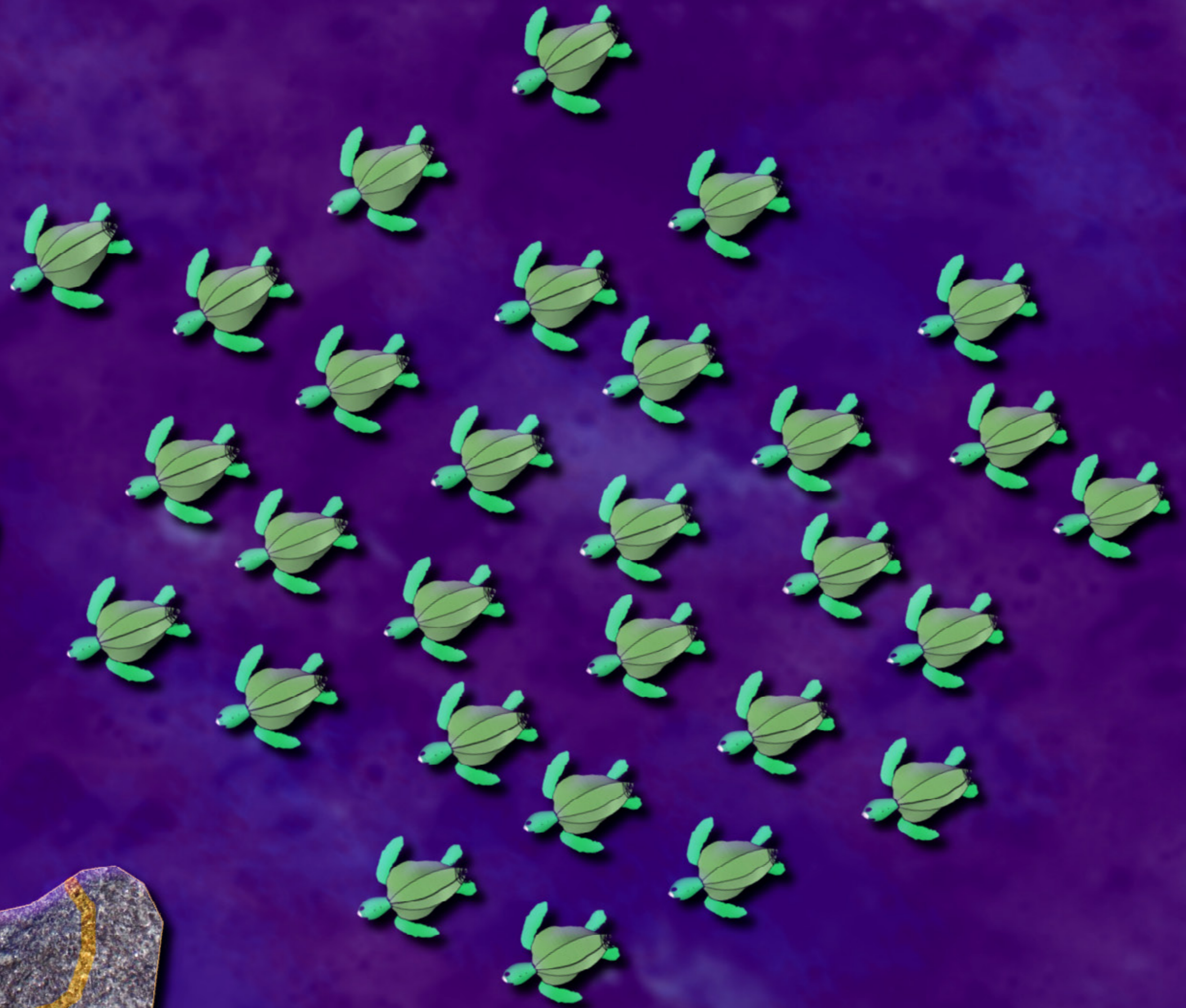
Where are you  
taking us!







Emma what are they saying?



They said the turtles  
are coming!



Emma  
escapes!

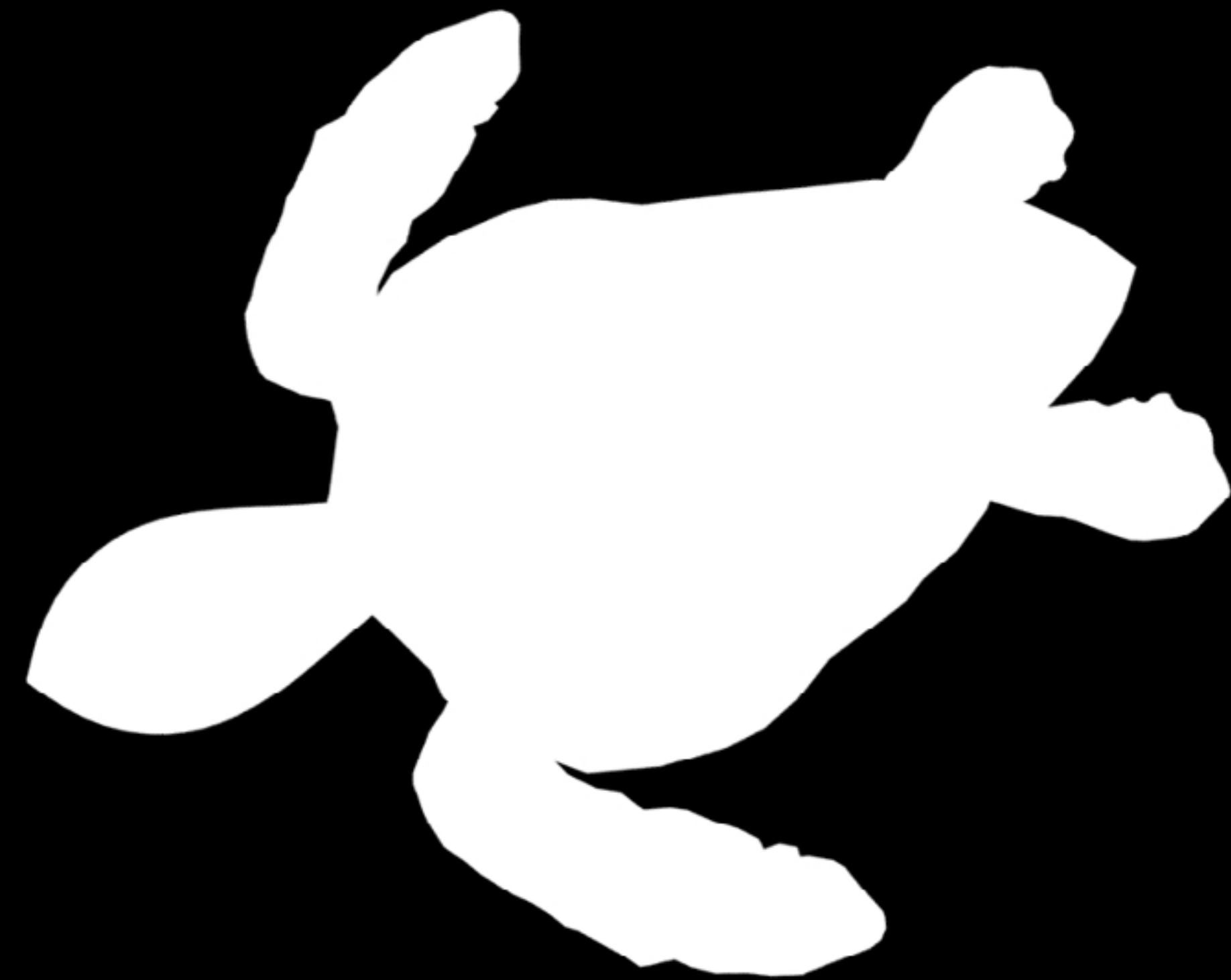
Great job Emma!

Now we have to  
get back to the  
island and build  
the bridge.





We have to build a bridge  
that doesn't block the turtles  
from the beach.

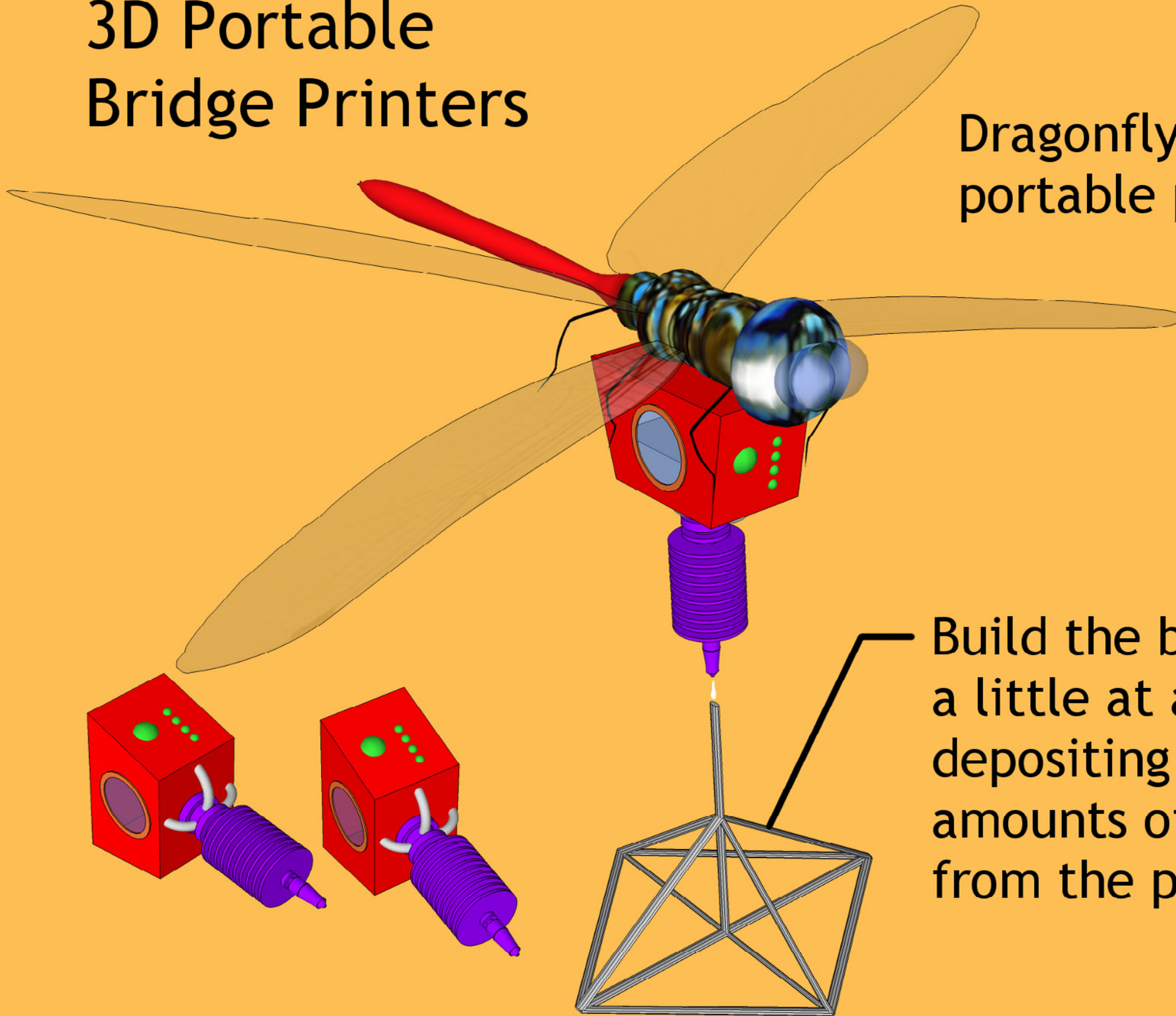




We need your  
help and all  
your friends!

# 3D Portable Bridge Printers

Dragonflies carry the portable printers.



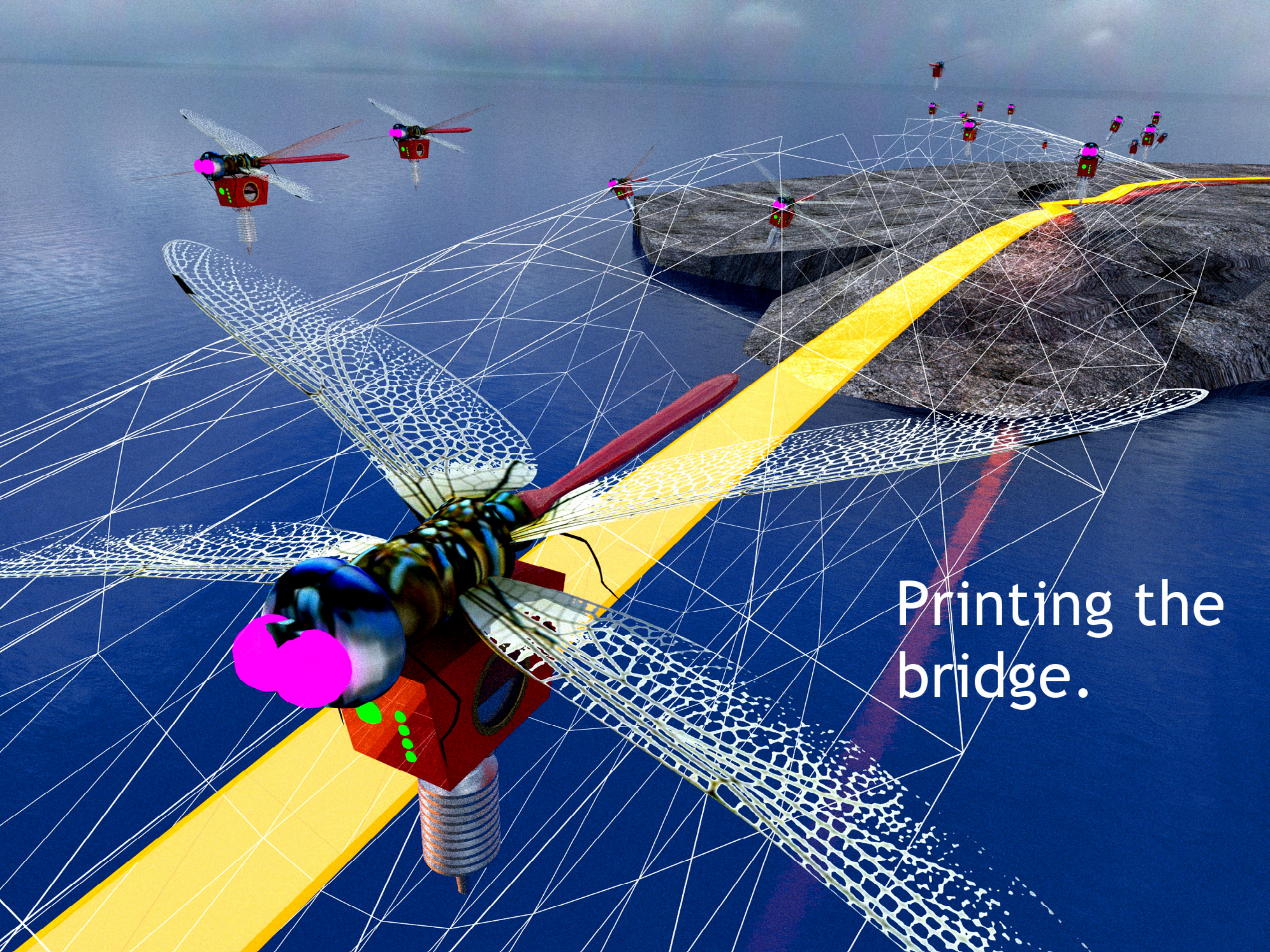
Build the bridge truss a little at a time, by depositing small amounts of metal, from the printers.

# BBR Facts!

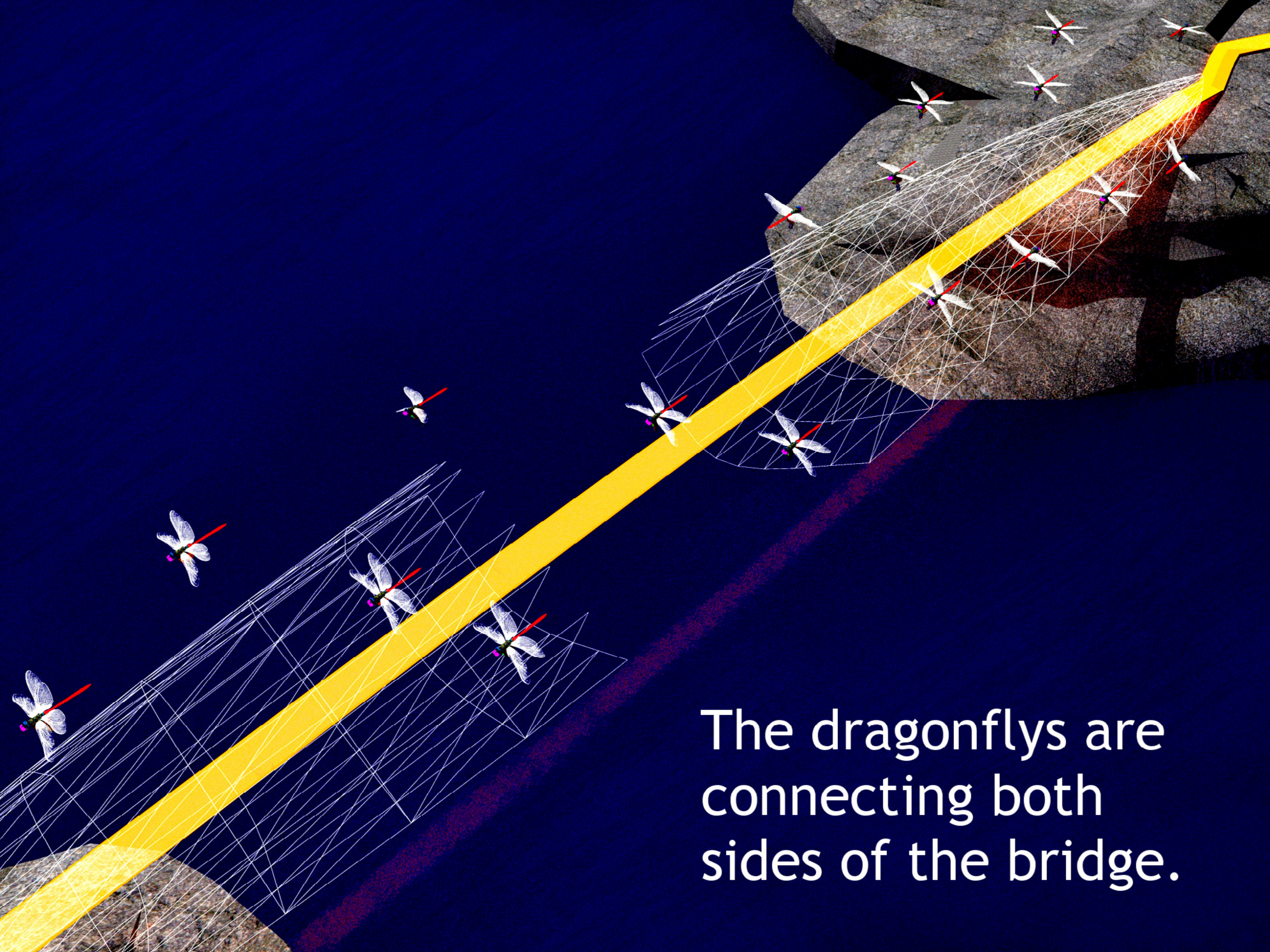


3D printed bridges are real but are still in the early stages of development. In the next few years we should see the first fully printed bridge!

Search "3D printed bridge"



Printing the  
bridge.



The dragonflies are connecting both sides of the bridge.



The bridge is finished!

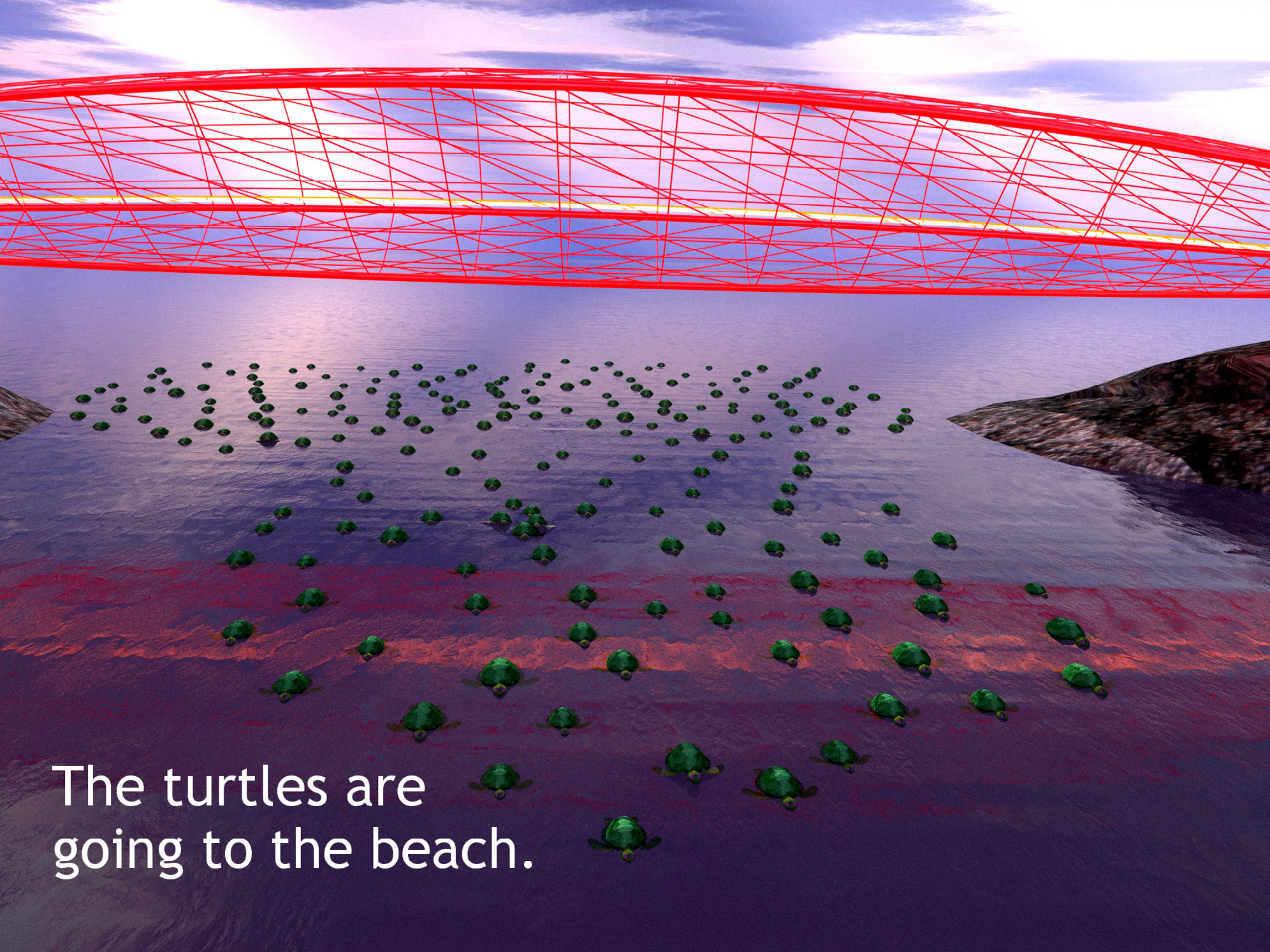
# BBR Facts!



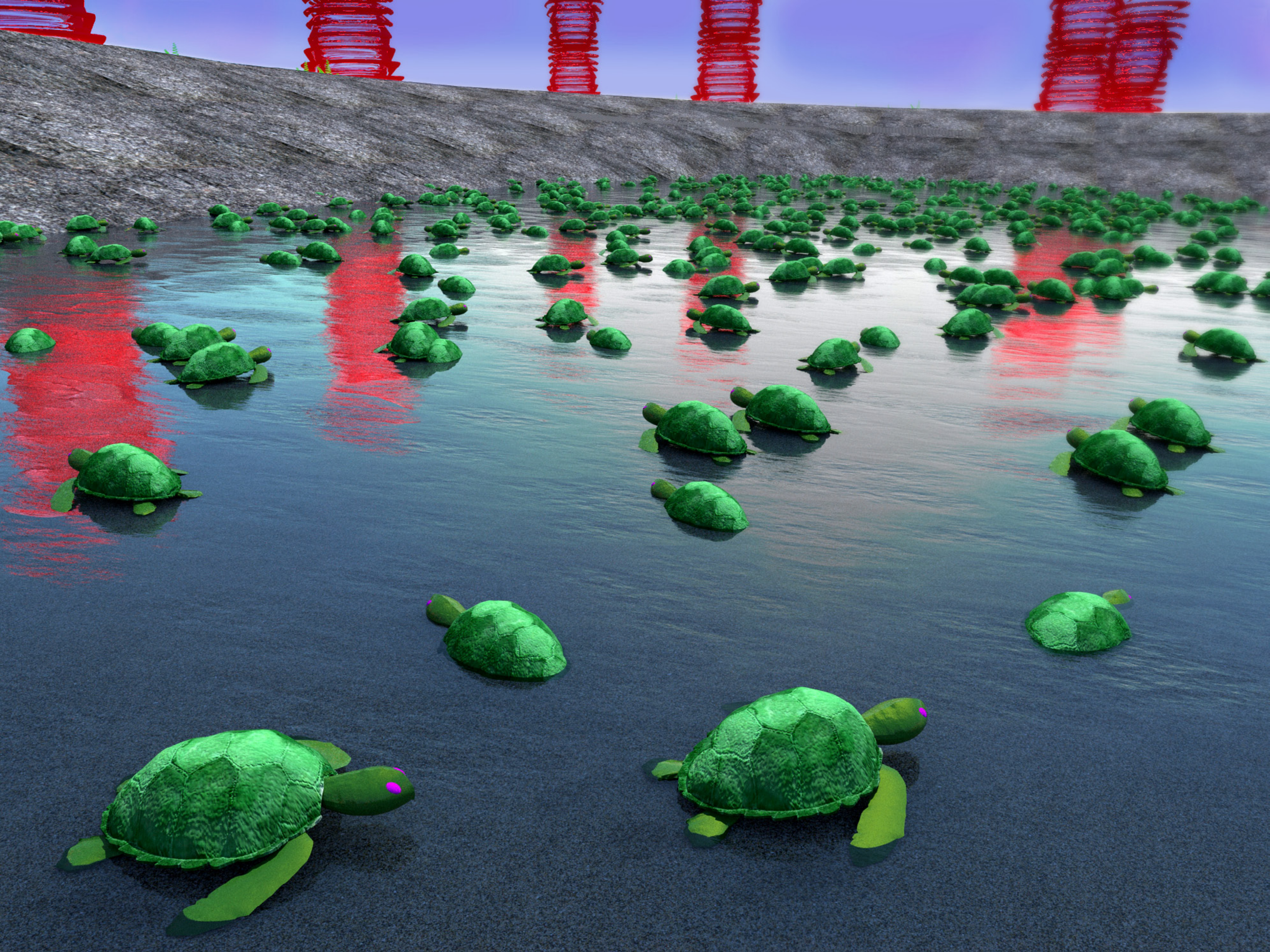
The 3D printed bridge is an example of a Space Truss Bridge.

Search "Space Truss Bridge"

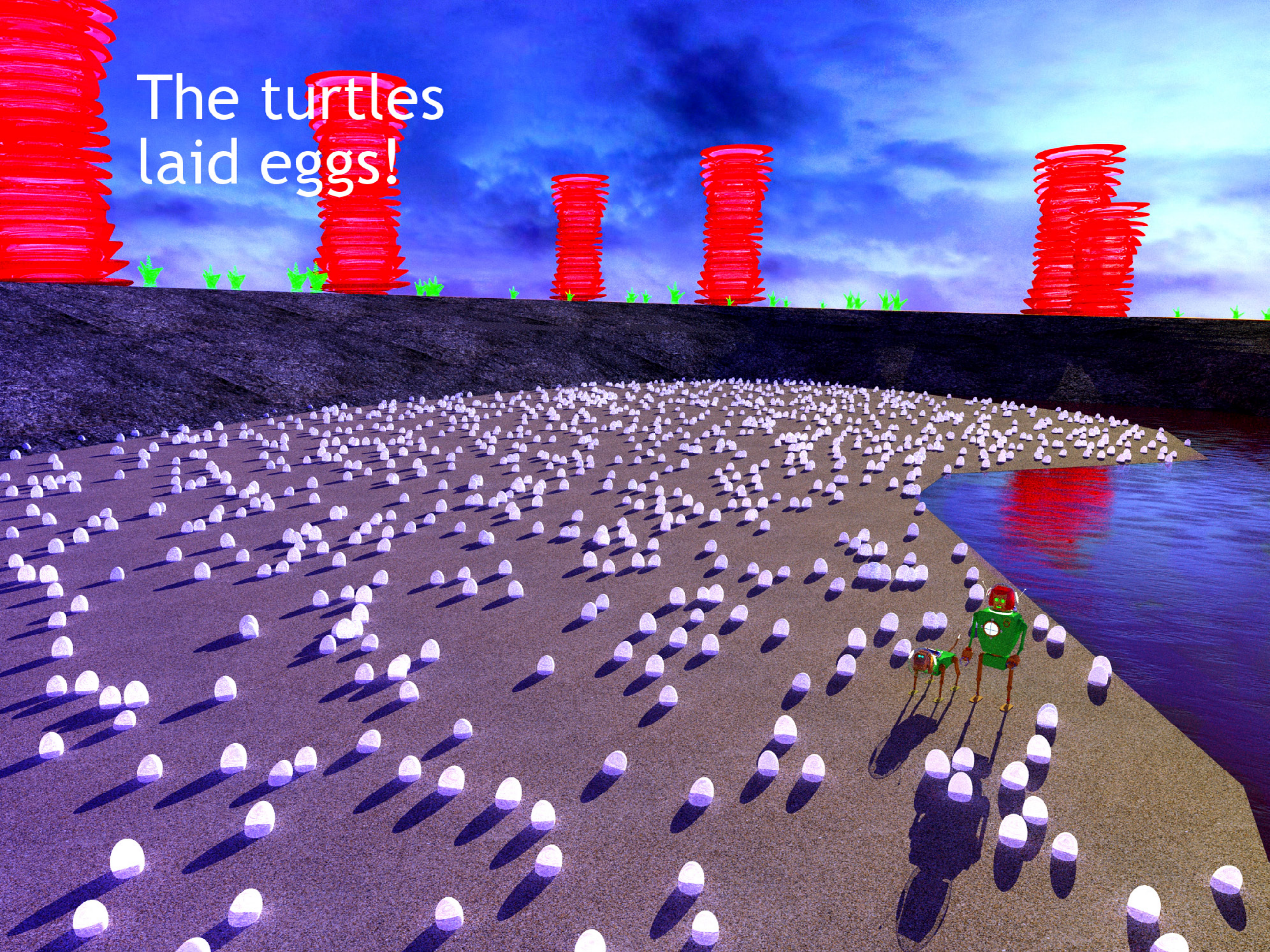




The turtles are going to the beach.



The turtles  
laid eggs!





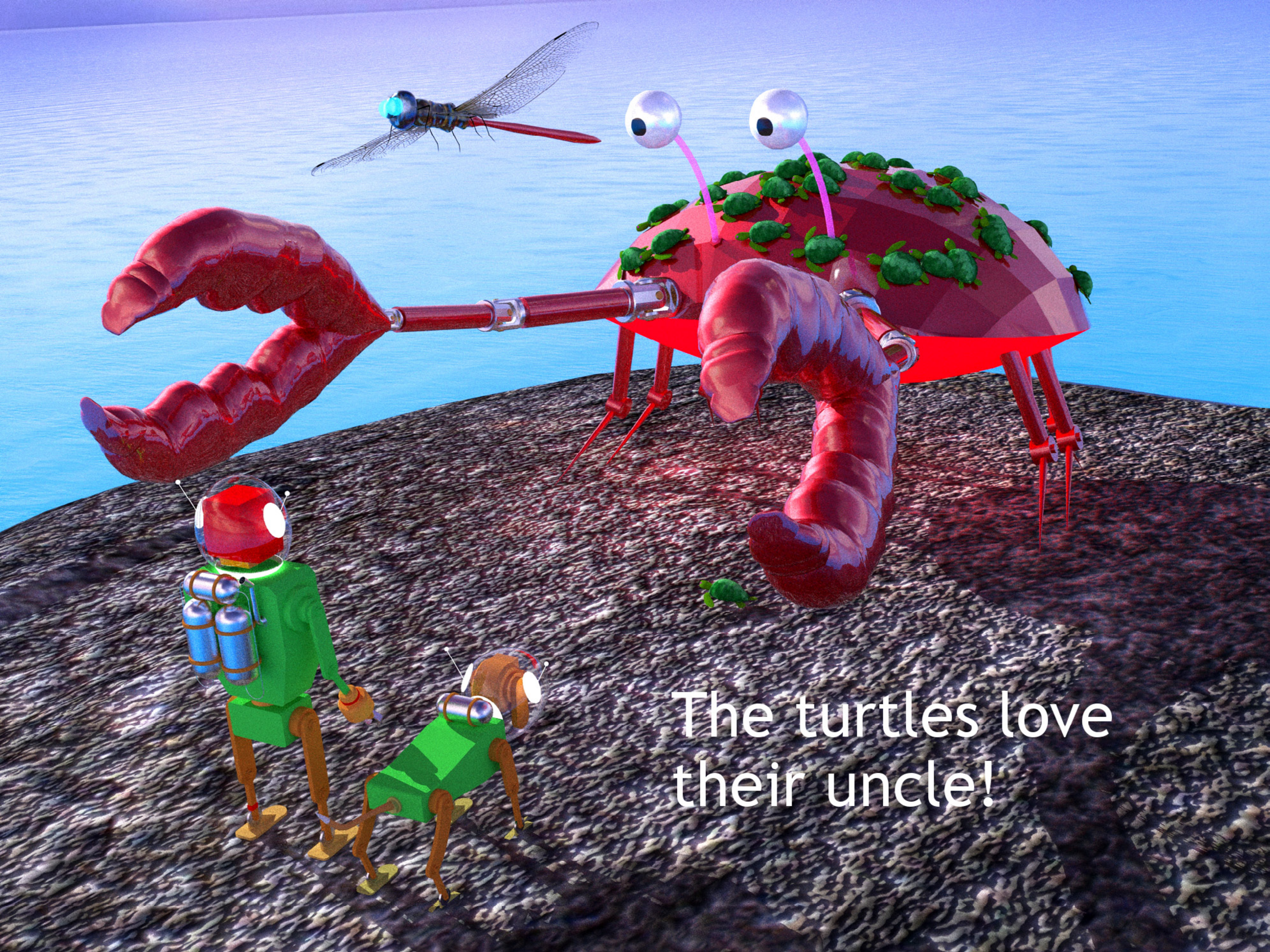
The turtles  
are hatching!



The baby  
turtles head  
out to sea.



Hooray!  
You built the  
bridge and saved  
the turtles!



The turtles love  
their uncle!



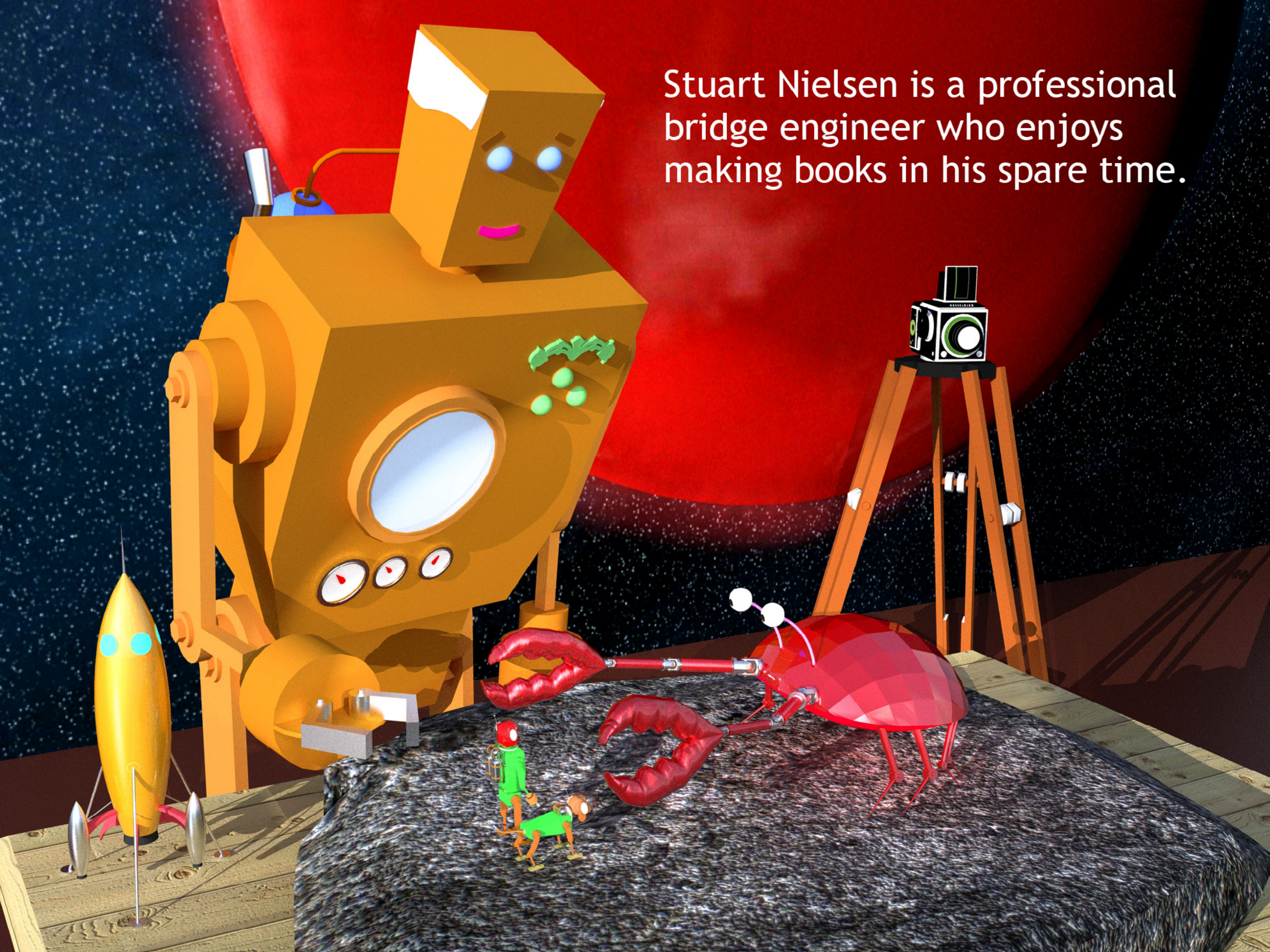
Have a safe  
journey home!



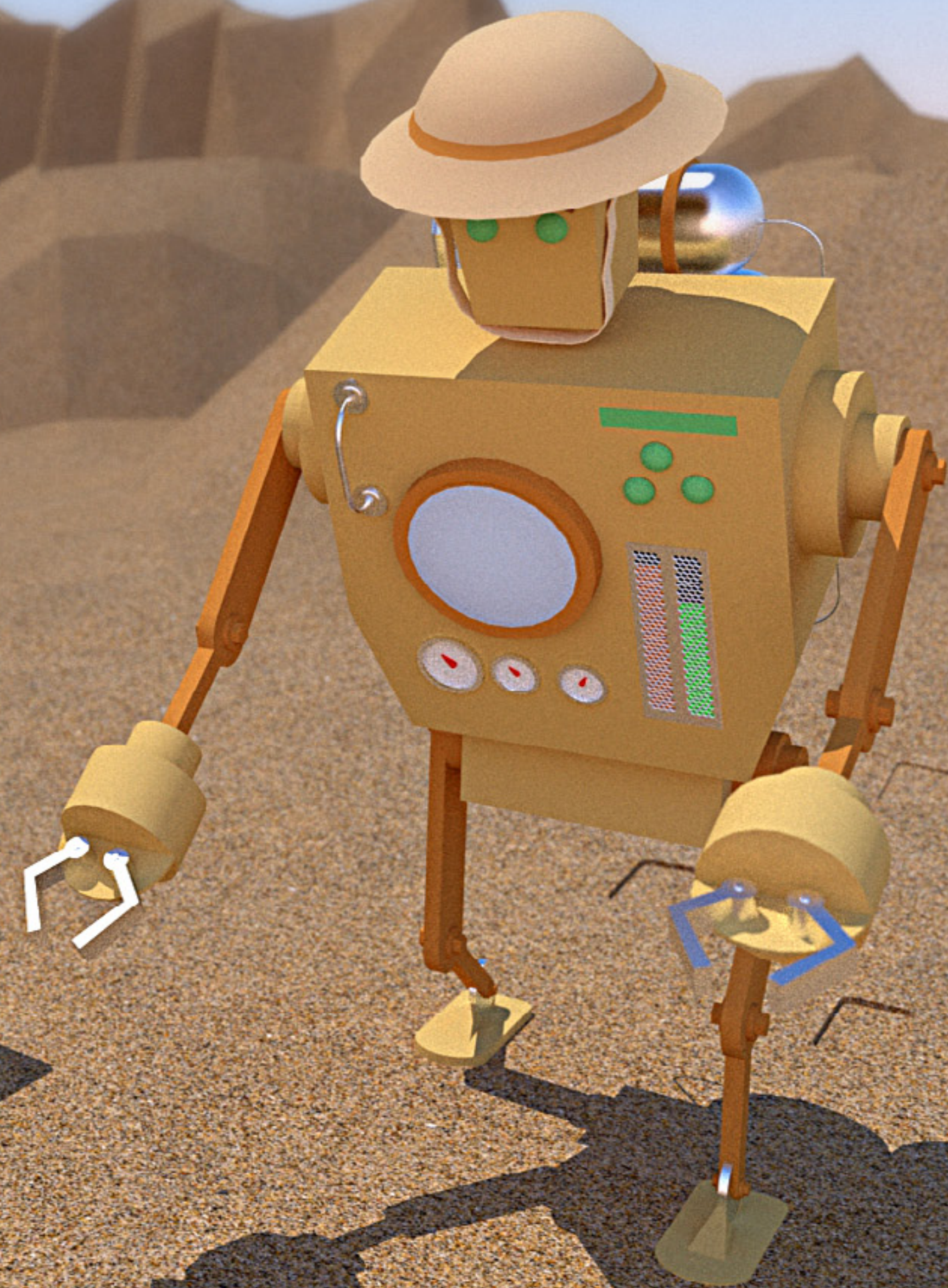
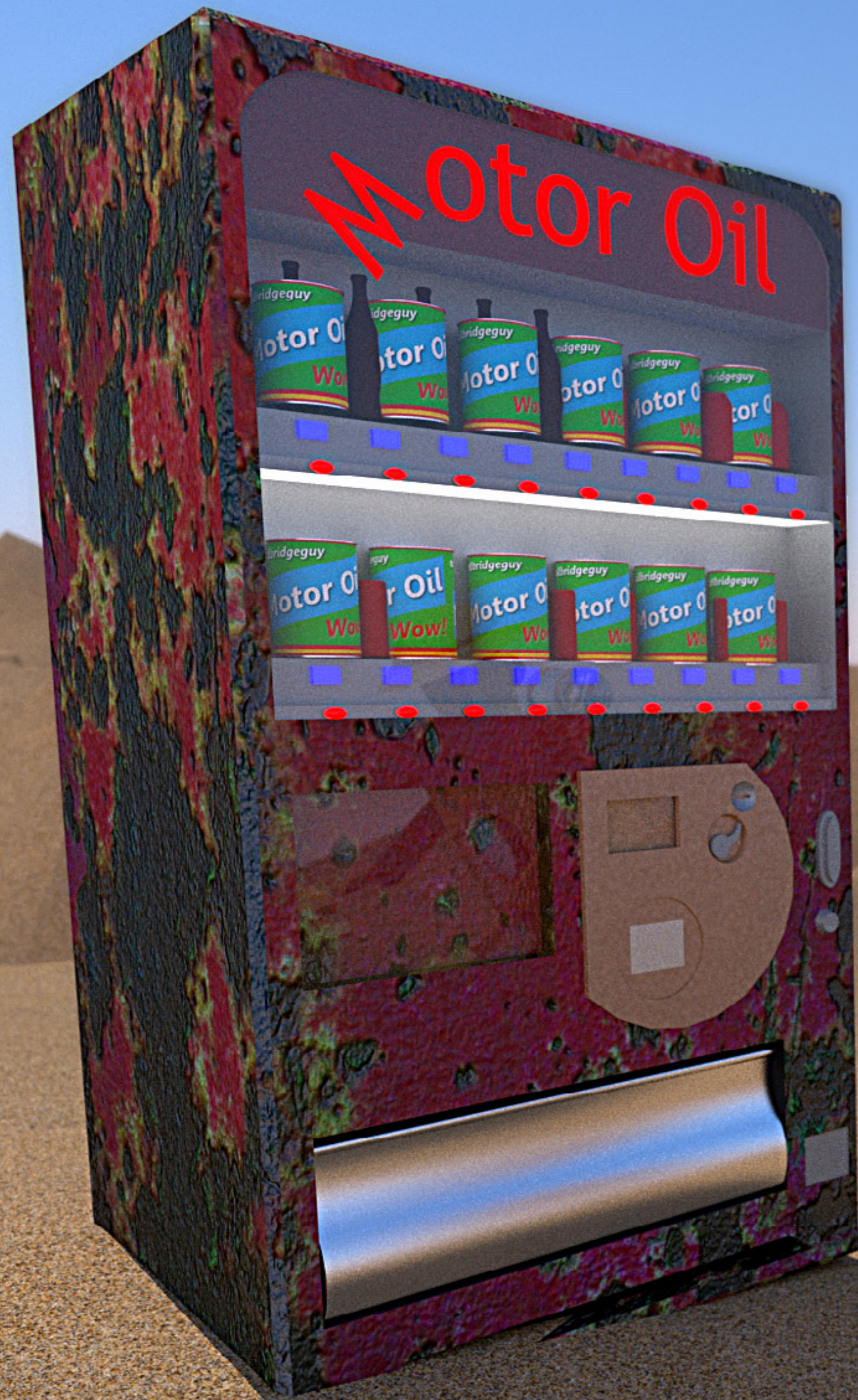


Where are Emma and  
Maggie going next!

Stuart Nielsen is a professional bridge engineer who enjoys making books in his spare time.



Dedicated to my wife Kori!



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The most famous  
Brunelian bridge  
engineer!



Isambard  
Kingdom  
Brunel

(He is too real,  
look him up!)

# Last Chance Gas

Next time,  
go before  
we leave  
home!

