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TO SCALE

0:15–1:20 If you look up an image of the Earth and moon, you're gonna get a picture where they're quite close together. Something like that. But, in reality, the Earth and moon are about and the moon to scale.

NOT TO SCALE

Taking the same concept of the solar system that we ever encounter is not to scale.

If you put the orbits to scale on a piece of paper, the planets become microscopic and you won't be able to see them.

There is literally not an image that adequately shows you what it actually looks like from out there. The only way to see a scale model of the

solar system is to build one.

Welcome to Black Rock Desert. This is Alex. I am Wylie. He's going to be behind the camera. I'm going to be... probably making a lot of mistakes on camera. We have 36 hours to measure the distances, trace out the orbits, and set up a time lapse shot from up on top of a nearby mountain.

1:20–2:29
OUT IN THE DESERT

To create a scale model with an Earth only as big as this marble, you need seven miles of empty space So, that's why we are here.

Why did you guys come? I don't have a job.

At this scale, the sun is a meter and a half. About, that big around. We are driving right now to Mercury and we have arrived.

Venus is the same size as Earth. I have the world in my pocket somewhere.

And... Earth.

And this, is Mars. We've got a couple of robots rolling around on that one.

2:29–4:46
BUILDING THE MODEL

Once the time lapse is ready, we'll drive each orbit with a light. Hopefully, you'll be able to tell just how big they really are.

Onwards to the outer planets. Jupiter.

Saturn. That tiny light out there is our Sun, just

over a mile away.

The Sun is way, way out there now.

So this is it, this is the edge of the solar system.

4:46–5:42 So right now, it's about 7 AM. We just woke up
SUNRISE right before the Sun is about to rise. We are on the
Earth's orbit Wylie is over there holding our Sun.
Cue the dramatic sunrise music.

If we've made our model correctly, your perspective from where Earth is on the model, will match your perspective from standing on real Earth. If you look back at the sun, you will see that the model sun and the real sun are the exact same size. That's how you can tell that the proportions are correct.

There are twenty-four people in the entire history of the human species, billions of people, who have seen the full circle of the Earth with their own eyes.

5:42–6:08 News report: "Following the breakfast the astronauts went to the suit room where they donned their space suits."
CURVE OF
THE EARTH

Cronkite: "This is Man's attempt to get to the moon..."

Announcer: "We have liftoff. Liftoff at 7:51AM..."

In Earth orbit the horizon is just slightly curved. When you head on out to the moon, that horizon

slowly curves around and upon itself, and all of a sudden you're looking at something that is very strange, but very very familiar...

Astronaut: "Oh my god look at that picture over there... Wow is that pretty!"

You can put your thumb up, and you can hide the Earth behind your thumb. Everything that you've ever known. All behind your thumb. Not any bigger than that, way up there. It's really beautiful. I mean, you can cry. That's what I really wanted to try and capture. We are on a marble, floating in the middle of nothing. When you come face-to-face with that, it's staggering.

6:08–7:07

WOW IS THAT PRETTY!