LUNAR LANDER

HOUSTON, WE HAVE A PROBLEM! AN ASTRONAUT IS RETURNING FROM A SUCCESSFUL TRIP ON THE MOON, BUT THERE’S A PROBLEM: THEIR RETURN CRAFT IS DAMAGED! WITHOUT THEIR RETURN CRAFT, THEY CANNOT RETURN TO EARTH SAFELY. AS AN ENGINEER FOR NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA), YOU HAVE BEEN TASKED WITH COMING UP WITH REPAIRS FOR THE RETURN CRAFT. SINCE YOUR ASTRONAUT IS ON THE MOON, THEIR RETURN CRAFT WILL HAVE TO BE MADE UP OF SIMPLE PARTS, YET STILL BE ABLE TO LAND SAFELY BACK ON EARTH.

YOUR GOAL IS TO CREATE A NEW LANDING CRAFT THAT CAN LAND ON A TARGET BACK ON EARTH WHILE KEEPING YOUR ASTRONAUT SAFE INSIDE. ARE YOU UP FOR THE TASK?

SUPPLIES

THE ASTRONAUT HAS A LIMITED AMOUNT OF SUPPLIES ON THE MOON, SO YOU ONLY HAVE THE FOLLOWING TO WORK WITH:

- LUNAR LANDER (CUP)
- LARGE ALUMINUM POLES (X2 STRAWS)
- STEEL SPIKES (X4 TOOTHPICKS)
- INDUSTRIAL RUBBER BELTS (X2 RUBBER BANDS)
- LARGE SOLAR SAILS (X2 NOTECARDS)
- LARGE METAL SHEET (CARDBOARD)
- LUNAR ROCKS (~X10 MARSHMALLOWS)

PROCEDURE

1: BUILD YOUR LANDING CRAFT

2: TEST YOUR LANDING CRAFT IDEA BY DROPPING IT FROM SHOULDER-HEIGHT ONTO THE TARGET LANDING ZONE. DID YOUR ASTRONAUT STAY IN THE LUNAR LANDER (CUP)? DID THE LANDING CRAFT LAND UPRIGHT? IF NOT, HOW CAN YOU IMPROVE YOUR DESIGN?

3: IF YOUR ASTRONAUT IS SAFE AND YOUR LANDER LANDED UPRIGHT, CONGRATULATIONS! SUBMIT YOUR DESIGN UP TO THE ASTRONAUT, AND BRING THEM HOME SAFELY!