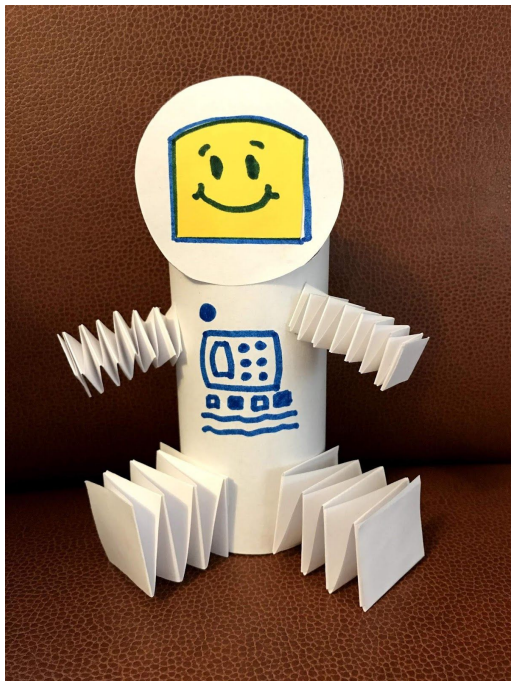


Don't despair when the toilet paper roll runs out of paper!

Yes, it's going to happen- you've been using that toilet paper so carefully and sparingly, but, eventually the roll is going to run out. We're here to turn lemons into lemonade and show you 3 great space and aviation themed crafts that you can make with that empty roll!

First up is this cute **ASTRONAUT** made from just one sheet of printer paper!



Supplies:

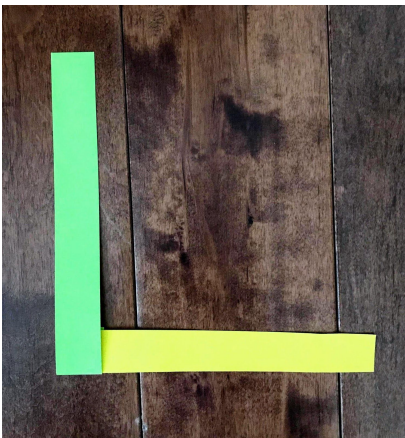
Empty Toilet Paper Roll
One Sheet of White Printer Paper
Scissors
Glue or Tape
Crayons or Markers

Directions:

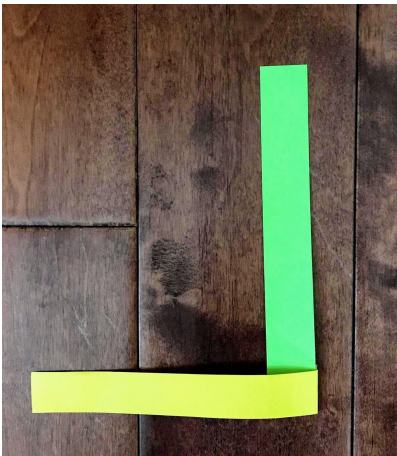
1. Cut four, $\frac{1}{2}$ " strips across the paper. Cut four, 1" strips across the paper.
2. Tape or glue two of the same sized strips at right angles. In the picture, I used two different colored strips to make it easier to follow along.



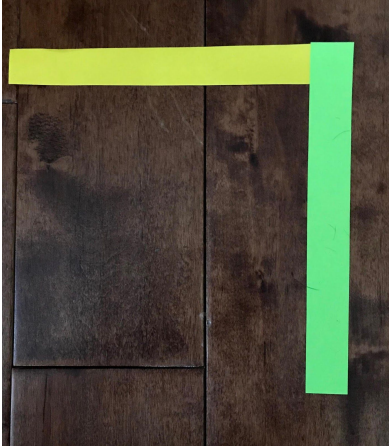
3. Fold the vertical piece up.



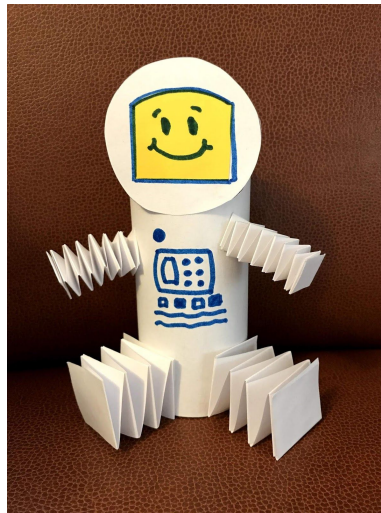
4. Fold the horizontal piece over to the left.



- Fold the vertical piece down.



- Continue until you reach the end of the strip and tape or glue it to secure.



Congratulations! You just made the first arm (or leg)! Continue with all of the cut strips until you have two arms and two legs.

- Cover the toilet paper roll with a piece of the white paper that is left.
- Cut a circle out of the remaining scrap.
- Decorate the body and helmet any way you want. You can even put a picture of your face on the helmet!
- Glue the helmet to the top of the covered tube.
- Glue the ends of the arms and legs to the tube.

Mission Control, you're ready for take-off!!

Next is a **ROCKET** ready for blast-off! It recycles a plastic Easter egg that you might just happen to have on hand this time of the year. (Don't worry if you don't have an egg, there's an alternate plan at the end!)

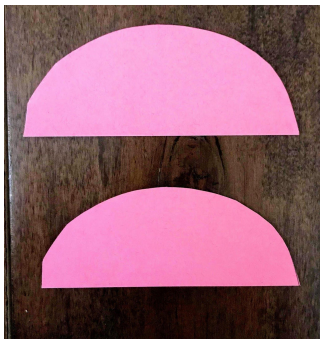


Supplies:

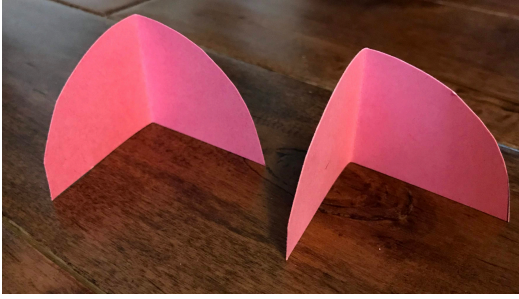
- Empty Toilet Paper Roll
- Plastic Easter egg
- Colored Paper
- Scissors
- Glue or Tape
- Crayons or Markers

Directions:

1. Cover the toilet paper roll with colored paper. Or, you can color or paint the tube instead.
2. Cut two pieces for the base. You can cut them out of paper, cardstock, cardboard, or anything else you have around the house. Each of my base pieces are 3" long and 1 1/2" high.



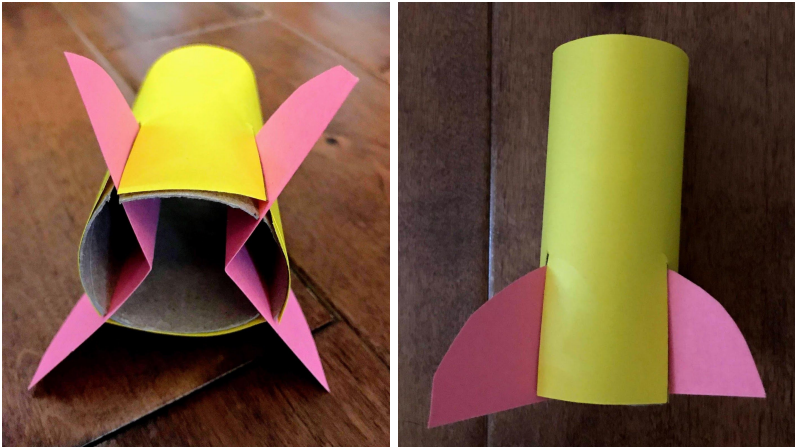
3. Fold each base piece in half.



4. Cut 4 slits, evenly spaced, on one end of the tube. The slit should be the same height as the height of your base pieces. The slits I cut are 1 1/2" long.



5. Slide your folded base pieces onto the tube. Tape if necessary.



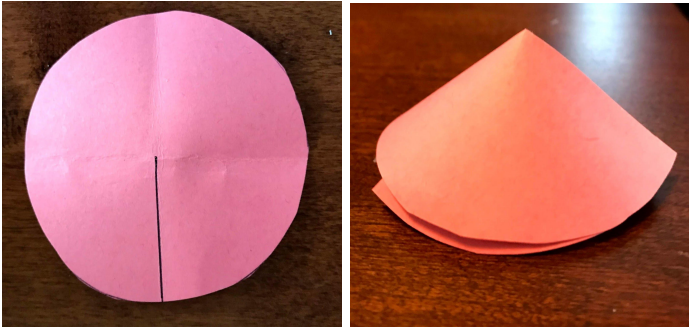
6. Decorate the tube. Be creative!

7. Place the egg on top for the rocket's nose!



No egg? No worries!

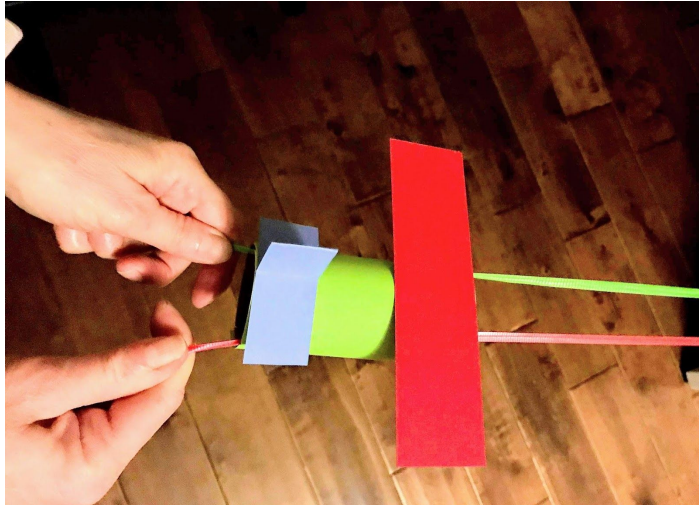
8. Cut a circle out of paper. My circle is about 3" across. Cut a slit to the center.



9. Roll into a cone shape and tape in place.



And now... (drumroll please!)... we saved the best for last!
It's our **ZOOM PLANE!** A super-awesome STEM project!



Supplies:

Empty Toilet Paper Roll

Colored Paper (or Plain Paper or Cardboard or Cardstock)

Scissors

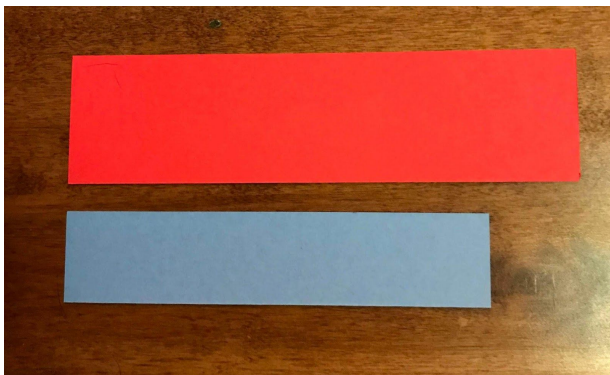
Glue or Tape

Crayons or Markers

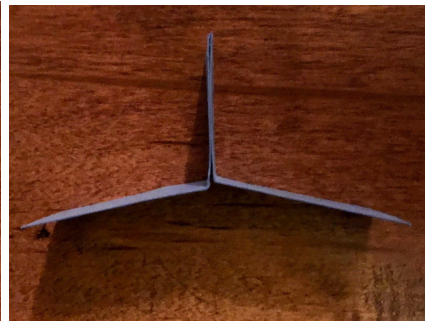
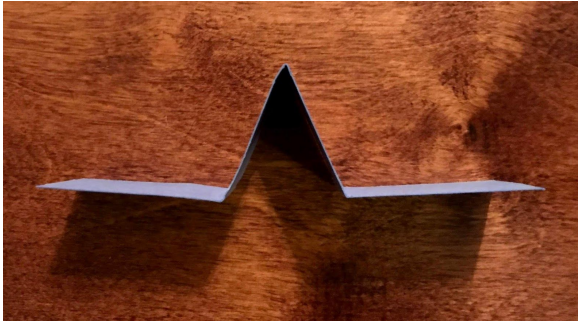
Two Long Lengths of String (or Curling Ribbon or Yarn)

Directions:

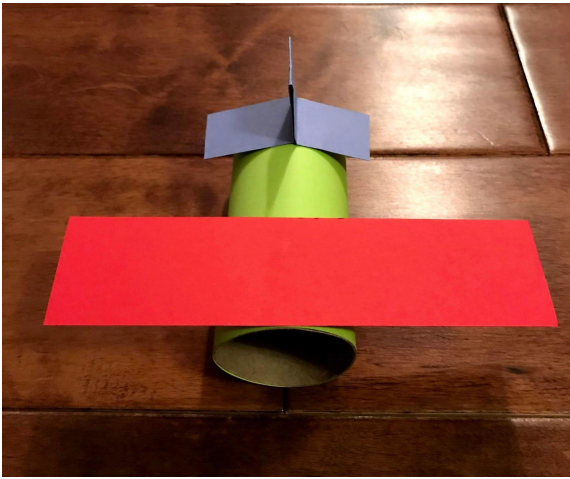
1. Cover the toilet paper roll with colored paper. Or, you can color or paint the tube instead.
2. Cut one strip of colored paper for the wing: 1 ½" wide by 6 inches long. And one strip of colored paper for the tail: 1" wide by 5 inches long.



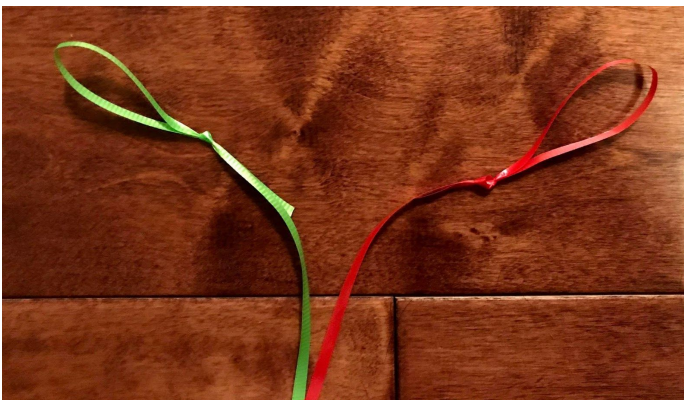
3. Fold the tail piece in half and then fold up the sides. Glue the upside down "V" together.



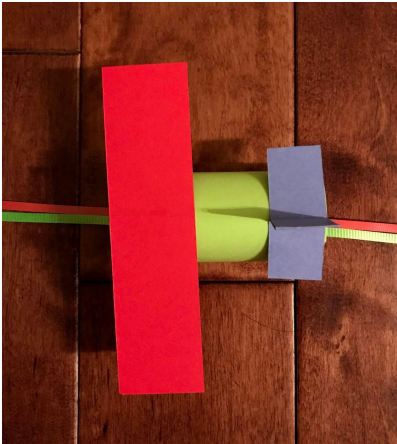
4. Glue or tape the tail and wing onto the top of the roll.



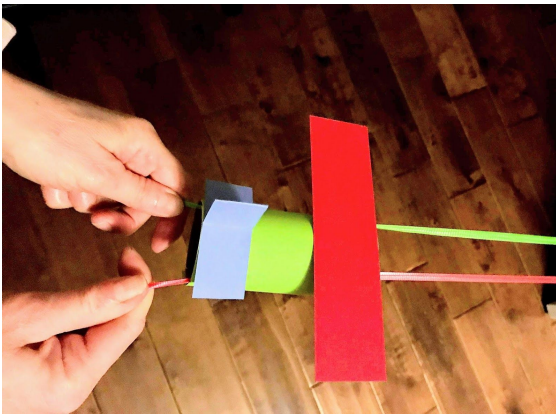
5. Tie a loop on each end of both strings. Make sure the strings are the same length.



6. Thread the airplane onto both strings. Be careful not to tangle the strings.



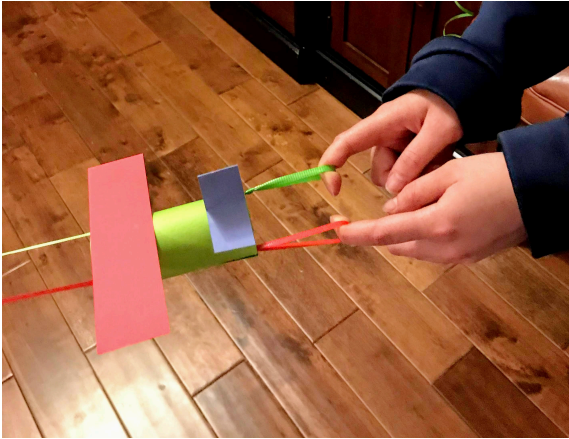
7. Find a friend. Each person holds one end of each string and pulls them taut.



8. Hold the strings together and move the plane to one end. The person closest to the plane pulls their hands apart and zooms the plane to the opposite end!



9. This person then pulls the strings apart and sends the plane zooming back.



10. Experiment with longer and shorter strings.

Flight tip 1:

Hold on tight and don't let go!

Flight tip 2:

Don't forget to bring your hands back together after the plane zooms away!

Things to think about:

- 1..What difference does the string length make?
2. What force is sending the plane zooming down the strings?
3. What is causing the plane to lose speed?
4. How can you make the plane fly faster?