LULAC Program Curriculum: 2021 Latina LEADS Program
Activity Theme: STEAM
Estimated Time: 1 hour
Introduction: Technology is changing how city developers think about organizing a region's infrastructure. Now more than ever, new technology is making it possible to address some of the biggest challenges with growing urban areas including pollution, lack of accessible transportation, high energy consumption, and more. Through this activity, you will better understand the residents of a city and brainstorm through possible solutions that provide a better quality of life for all residents.
Materials/Special Requests: Computer/Laptop, Internet access

Instructions:

1. As a class, share what you consider are some of the biggest challenges found in your city. Here is a list of themes to get you started:
    a. Housing
    b. Sanitation & disposal
    c. Environmental
    d. Transportation
    e. Crime

    When coming up with challenges, think about the following questions for each challenge you present:
    a. How does this impact the residents of your city?
    b. Does everyone experience these challenges in the same way?

    As a class, select what you consider is the top challenge residents face in your city.

2. Break out into small groups of 3-4 people. In your small groups brainstorm through a smart city design or initiative that could help solve the challenge you selected. Your designs should be developed to make all residents' lives better. Keep in mind how residents have different needs based on their locations, identities, and day-to-day experiences.

    Work together with your group members to select the top design or initiative.

3. As a group, discuss how your design or initiative may impact people who are:
    a. Seniors (65+ years old)
    b. Work late hours or a night shift
    c. Deaf or hard of hearing
    d. College students living on their own
    e. Live in a rural area with limited resources

      f.   High school students working part time

Think about how someone who identifies with one or more of the categories listed above may think or feel about having your design or initiative where they live.

      g.   Does your design or initiative make their lives better?
      h.   Are there any drawbacks to your design or initiative?
      i.   What improvements can be make to your design or initiative to make it better?

4. Modify your design as needed based on your discussion.

5. Time to share! At the end of the session, you will have the opportunity to share your smart city design or initiative with your peers and teacher.

Extension:
Use Tinkercad.com to create a 3D design of your smart city initiative.