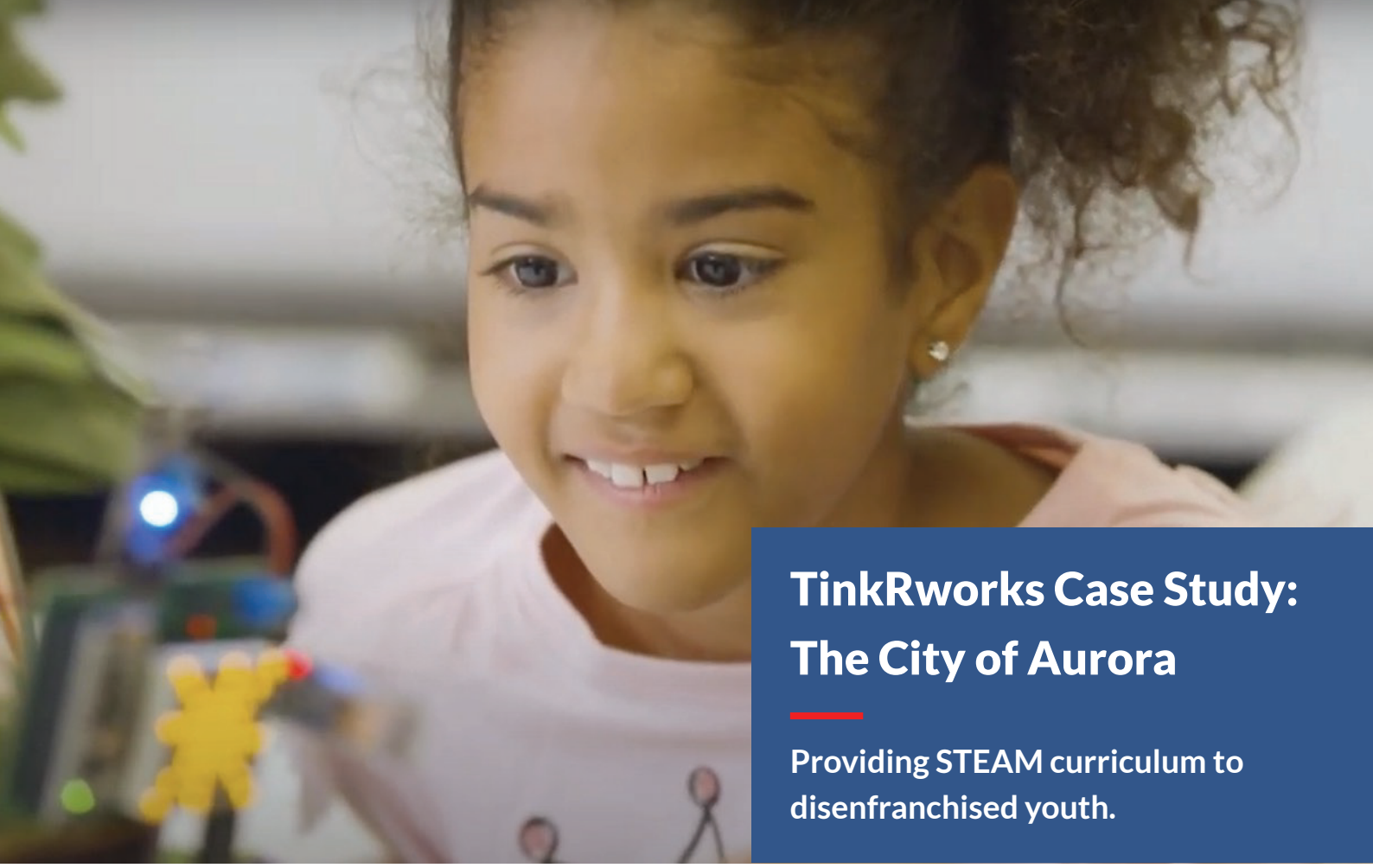


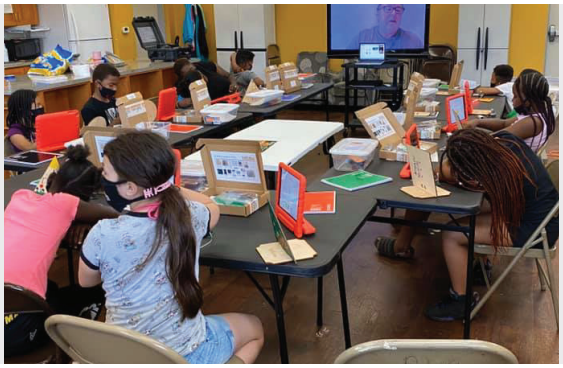
TinkRworks Case Study: The City of Aurora

Providing STEAM curriculum to disenfranchised youth.

Background:

TinkRworks partnered with the City of Aurora to launch virtual summer camps in 2020, where more than 50 students in Aurora participated in building and programming STEAM (Science, Technology, Engineering, Art & Mathematics) projects. Aurora Chief Information Officer, Michael Pegues, spearheaded this partnership between the City of Aurora and TinkRworks.

Pegues, an Aurora native, was initially introduced to founder and C.E.O. of TinkRworks, Anu Mahajan, through a mutual friend. At that time he was looking for opportunities to bring exciting and enriching science and technology programs to engage disenfranchised youth in the city and its neighborhoods.



"I always noticed that there was a huge deficiency in the City of Aurora in terms of those types of incubators and STEM providers and those services being delivered to the disenfranchised youth here,"
said Pegues.

At a visit to the TinkRworks Engagement Center, Pegues was highly impressed with the level of innovation and creativity.

"I was just blown away with the shop and innovation, and some of the projects that they were working on."

The City of Aurora and TinkRworks teamed up to create a prototype of five camps for the summer, made up of 50 students from various disenfranchised areas of the city. Due to the onset of COVID-19, instruction took place remotely with the appropriate safety precautions in place.

The outcome was a huge success with accolades coming from Alderwoman Scheketa Hart-Burns and Alderwoman Juany Garza, alderwomen of the largest disenfranchised wards in the City of Aurora. City leaders and also parents were enthralled for their children to have had this opportunity to build and program their own robots.

"Thinking about what the parents said and listening to them, they were just really surprised that this was even happening. I remember seeing the faces of a lot of the parents as these kids were going through the classes. I remember them asking me, 'when are we going to do the next class?'"

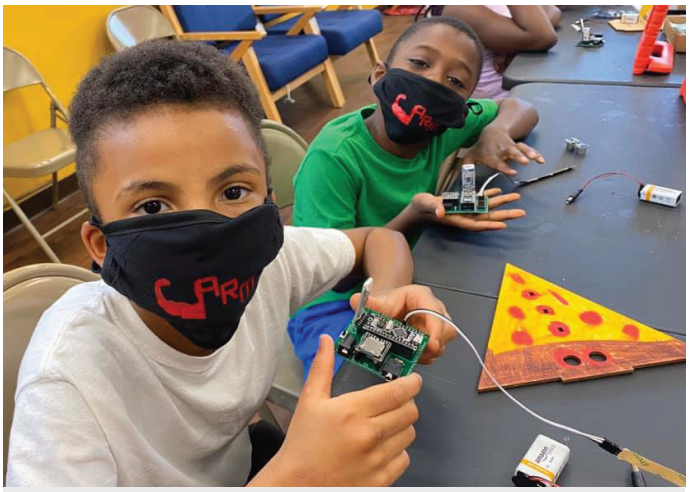
Challenges:

It is Pegues' own experiences as a child growing up in Aurora that motivated him to provide STEAM opportunities to youth in his city.

"I did not have these opportunities, myself. I had to go out and find my opportunities. So, now being back in Aurora, I'm trying to provide those opportunities for my constituents-those little boys and girls like me, those minorities, who didn't have an opportunity because it's so important to get these kids exposed to STEM at those early, early ages."

Pegues' thoughts align with national research, suggesting that children, who are exposed to STEM curriculum and programming at an early age demonstrate fewer gender-based stereotypes regarding STEM careers and fewer obstacles entering these fields later in life.

Pegues' goal is to provide STEAM opportunities to as many disenfranchised youths as possible in the City of Aurora. In addition, Pegues is launching the 605 Innovation District Project, a smart city, public-private partnership.



"It is a very bold and very unconventional approach and, what we're doing is looking for private equity funding in the amount of $300 million that will be invested towards smart city technology throughout the City of Aurora."

Pegues knows that his Smart City vision will need many young learners, innovators, and technologists. He sees TinkRworks as the organization fulfilling that role in creating a 21st century workforce as a part of the smart city ecosystem in Aurora.

Furthermore, Pegues' goals revert back to creating education reform in public schools with TinkRworks as a key player.

"I think companies like TinkRworks are the perfect partner for us as they provide leading-edge STEM opportunities for our City's children. We provide the access while TinkRworks provides content--it's truly synergistic for both of us."

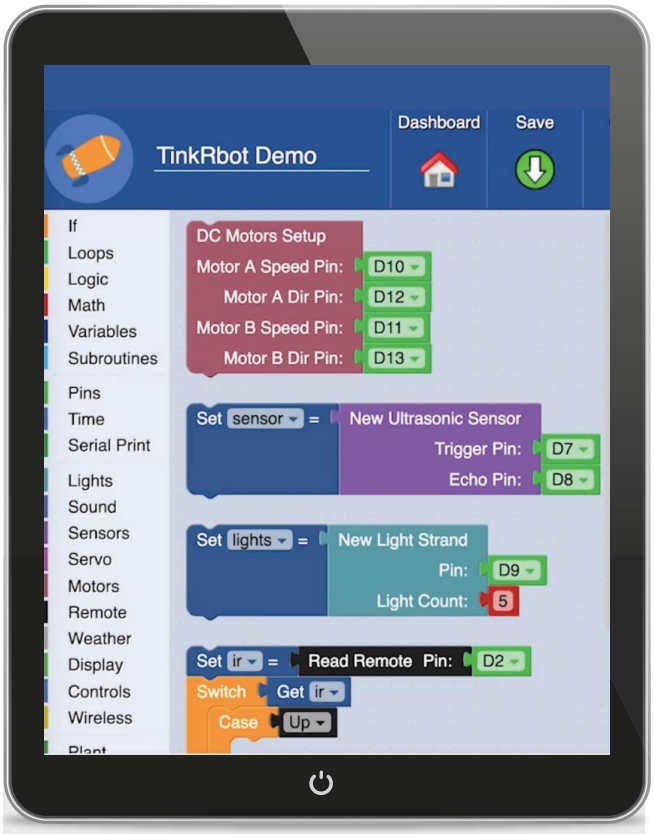
There was initial concern that students from disenfranchised backgrounds wouldn't be able to successfully participate in the STEAM program, given the lack in a strong math and science foundation.

Solution:

Pegues envisions implementing STEAM education for all students K-8 in the City of Aurora. He would like the STEAM program to reach as many students as possible.

"My target would probably be to try and identify every disenfranchised youth in this city and provide an opportunity for them to be exposed to STEM learning at an early age. So, whatever that number is, that's the number I'd actually be shooting for."

In fact, Pegues' children participated in building the TinkRworks' projects. Eight-year-old twin brother and sister, Noah and Nina, built the Art Electric Project, while ten-year-old Noel took part in TinkRbot.



"As a city, we're really excited about creating new STEM jobs. To succeed in the long term, though, we need to do more than just create jobs--we need to develop a pipeline of candidates who can slot into these jobs. This starts by providing leading-edge STEM educational opportunities at the k-8 level that are also affordable--that's what we're doing with TinkRworks.

"My favorite part was when we had to put the paint on it," said Noah, whose sister's favorite part was also decorating the Art Electric project. Noel's favorite part was coding his TinkRbot.

Pegues firmly believes that the partnership between the City of Aurora and TinkRworks is a means to providing at-risk students with a foundation that they wouldn't have otherwise. He looks at this partnership from the perspective of a social endeavor.

"The kids are the human capital within the city. If you don't invest in them, then who are you investing in?"

The Future:

As schools have transitioned to virtual and hybrid teaching programs due to COVID-19, TinkRworks has created an e-daptable STEAM-X module that can be taught virtually or in the classroom. At the moment The City of Aurora is looking at providing TinkRworks STEAM programs to over over 600 students for 2021 and a district-wide expansion after that.

“Execution is the chariot of genius. Let’s just do it; we’ll figure it out as we go. It’s going to be great. I think, it’s going to be even better than the summer prototype.” - Mike

Pegues sees an outstanding future of collaboration between the City of Aurora and TinkRworks, one that will also be instrumental in creating a future workforce that is in tune with technological advancements.

“The future’s bright. We’re on the train and it’s left the station.”

Pegues’ vision has no boundaries, and he hopes to see a very long-term partnership with TinkRworks.