LAIA's Rooftop Garden Robotics™

Baltimore, MD

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Lab for Artificial Intelligence and its Applications (L.A.I.A.)
Coppin State University

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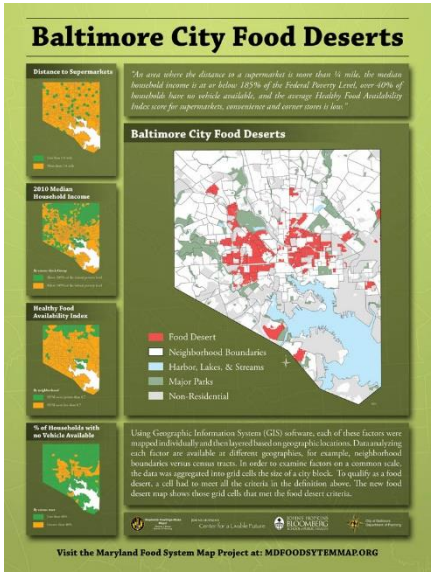
Food deserts in the city of Baltimore, MD are well documented.



BALTIMORE DEMOGRAPHICS AS OF 2012

Source: 2010 Census Data and the Department of Planning

1 in 5 Baltimore City residents live in food deserts, or 125,000 people

Nearly 1 in 4 of Baltimore's school aged children (0-17) live in a food desert, or 31,000 children

1 in 4 of Baltimore's African American population lives in a food desert.

1 in 4 households, or 13,000 households receive Supplemental Nutrition Assistance Program (SNAP) benefits, twice the percentage of non-food desert households.

1 in 3 of Baltimore's neighborhoods, or 36 percent, are located within a food desert.

Led by Juxtopia Intelligent Spaces, Computer Science students at Coppin State University, which is located in West Baltimore, worked towards a solution to combat food deserts.

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After surveying the landscape of the city, students realized the anatomy of Baltimore features many more flat rooftops than it does flat green farm land.

Once this was realized, students asked the following questions:

1. Can fresh fruits and vegetables grow on these rooftops if they are configured correctly?

2. If so, how can these crops be maintained and harvested?

3. What mechanisms/tools can be used to get the harvested crops from the rooftops to the ground in residents' hands (e.g. sidewalks, farmers markets, corner stores)?

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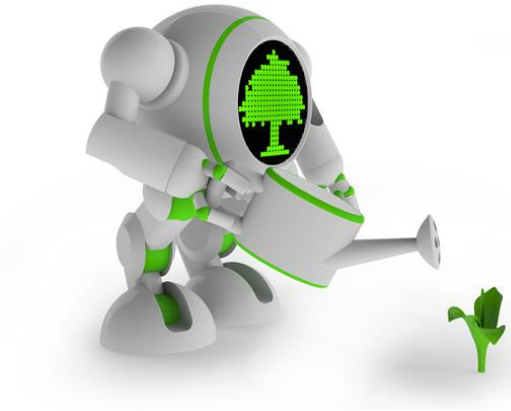

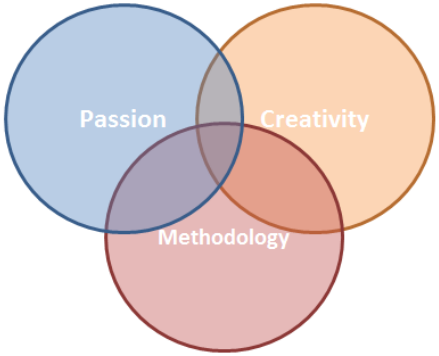

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After more thought, brainstorming, and discussion with mentors, the Rooftop Garden Robotics Project™ was an obvious solution!

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LAIA's Rooftop Garden Robotics™

Rooftop Garden Robotics™ are designed to be food gardens located on the tops of rowhouses throughout out Baltimore, MD where robots and other smart technologies are used to plant, maintain, and harvest fruits and vegetables. These robots collect and store grown crops in crates and signal Rooftop Garden Drones to pick up the crates and deliver them to humans on the ground.

Baltimore, MD

Rooftop Garden Robotics™ integrate the artificial intelligence, robotics, and drone research and development work done by students in L.A.I.A. at Coppin State University. The project is in partnership with The Juxtopia Group and APHA HIIT Disparities Campaigns. Professionals from Juxtopia Intelligent Spaces and APHA HITT experts will also remotely mentor students.

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