<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Project Goals</th>
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| October 2017 | • Study history of agriculture and urban farming  
              • Study history of computers and technology  
              • Learn how to code in Python programming language and build Raspberry Pi (microprocessor) computers  
              • Build three tabletop Food Computers and begin planting produce in the Food Computers and in soil gardens to compare growth patterns and rates  
              • Study vertical gardening and aeroponics techniques to also add into the full-room Food Computer |
| November 2017 | • Study and understand engineering design parameters  
                 • Study stakeholder-centered design to relate project to local communities  
                 • Make plans for full-room Food Computer  
                 • Begin building and collecting data on plants  
                 • Guest lectures from urban agriculture and technology industry professionals |
| December 2017 | • Continue building full-room Food Computer  
                 • Set up computers, sensors, and other necessary instruments (grow lights, fans, dehumidifiers) in an automated system  
                 • Plant produce in full-room Food Computer  
                 • Guest lectures from engineering design industry professionals |
| January 2018 | • Collect data from plant growth rates, Food Computer Room temperature/humidity/light/nutrient level, energy usage  
                  • Study food science and cook with Food Computer-grown produce  
                  • Compare hydroponics and aquaponics systems  
                  • Study fish health  
                  • Guest lectures from sustainability-related industry professionals |
| February 2018 | • Study sustainability and how it relates to Baltimore City and Maryland Food Systems  
                    • Study alternative energy sources, such as solar power and alternative fuels  
                    • Continue to document plant growth rates  
                    • Calculate current Food Computer Room energy usage from different components (lights, Raspberry Pi, nutrient/water pumps, fans/dehumidifiers)  
                    • Guest lectures from food systems industry professionals |
| March 2018 | • Compare energy calculations with actual energy use  
                  • Identify which components consume the most energy and other resources (water, added nutrients, etc.)  
                  • Calculate how much energy different kinds of solar panels can provide and how many solar panels would be needed to provide adequate energy for our Food Computer Room needs  
                  • Guest lectures from energy industry professionals |
<table>
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<th>Month</th>
<th>Tasks</th>
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| April 2018 | • Revisit design methods and parameters to determine the best solution for implementing solar panels  
• Install solar panels and connect to Food Computer Room system  
• Continue to document plant growth rates  
• Continue to monitor energy usage in Food Computer Room  
• Guest lectures from alternative energy industry professionals |
| May 2018   | • Continue to document plant growth rates  
• Continue to monitor energy usage in Food Computer Room  
• Discuss how we can use solar energy-powered indoor gardens in other places in our communities  
• Interview community members to better understand how we can implement solar-powered indoor farms throughout Baltimore City  
• Plan a meal around the produce grown in our indoor garden  
• Guest lectures from food and energy industry professionals |
| June 2018  | • Conduct final analysis of plant growth rates in different systems  
• Conduct final analysis of energy usage with solar panels  
• Present findings at the Baltimore City Office of Sustainability Food Policy Action Coalition or another related meeting/conference  
• Eat meal from Food Computer Room produce with the entire high school |