

# Rutgers University: MIDDLE SCHOOL Computer Club in a Box!

Final Report

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**RUTGERS**  
Creating Successful Computing Clubs in NJ Middle and Elementary Schools  
"CS in a Box" for K-8 Teachers



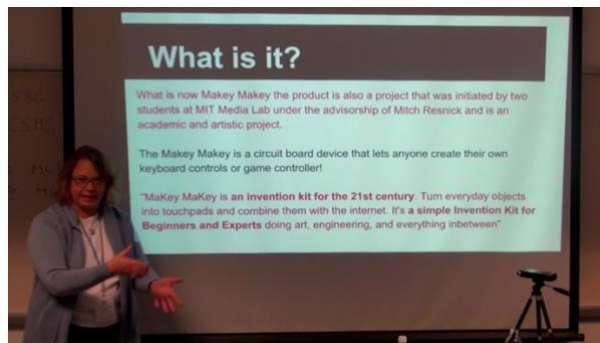
**Inside the box:**

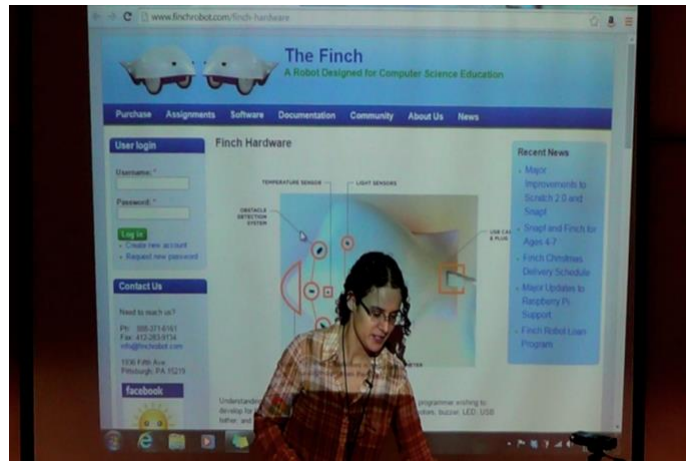
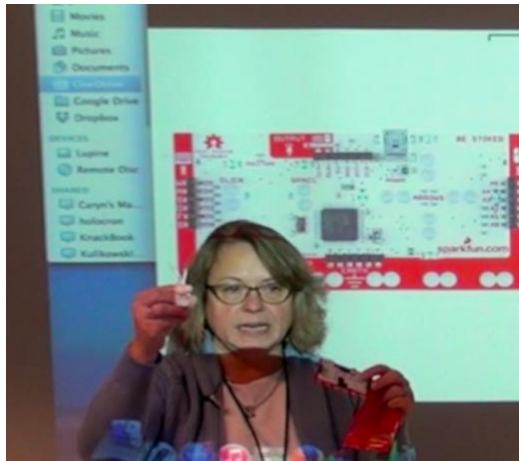
- Workshops featuring Scratch, Finch Robots, Makey-Makey Toolkits
- RU CS in a Box Community
- Online and F2F Sharing
- Ideally: Booklet of lessons for integrating in curriculum or for computer club activities

Project funded by SIGCSE Special Projects Grant Program

Our goal is to bridge the gap between computing concepts introduced in K-8 and the computer science courses offered in grades 9-12. This SIGCSE Special Projects Award allowed us to provide professional development to 20 middle school and elementary school teachers in the area of computing concepts with the goals of having these teachers initiate a computer club or integrate computing concepts in their current curriculum. We provided professional development and ongoing support and mentoring to these middle school teachers throughout the year. Our initiative consisted of two face-face (F2F) workshops in the Fall, optional participation in CS Ed Week, and a sharing of activities in the Spring 2015:

- October 18, 2014 (CS Unplugged Activities, Makey-Makey, and Programming in Scratch)
- December 6, 2014 (More with Scratch, Finch Robots)
- **Computer Science Ed Week (December 8 – 14, 2014):** We encouraged all participating Schools to take part in this Celebration of Computer Science within their school environments.
- For the Teachers, By the Teachers (February 2015)
- Participation in Rutgers Day (April 2015)





**As a very important note:** Our primary goal is to have computer science concepts and computation thinking practices introduced in the This grant offered the opportunity to help build a K-12 face-to-face local CS teaching community.

The teachers involved with this grant have been invited to, and attended, our K-12 teacher PD workshops funded by Google. Ideally, we want to create a seamless transition for students from CS concepts introduced in K-8 to computer science courses offered in grades 9-12. It is partially due to our work from this Special Projects Grant that we were awarded a Google grant to work with Middle School teachers during summer 2017. Although we never accomplished the creation of the workbook of activities for MS Computer Club in a box, the teachers that participated in the CS in a Box activities met on a Saturday morning in the Spring of 2015 where each teacher presented their accomplishments in their particular schools/districts. This workshop, “For the Teachers, By the Teachers”, was one of the best workshops Rutgers has ever offered to teachers in the way of PD. The teachers shared their experiences. As a result, many resources were shared among the teachers in this group with each teacher creating a “guidebook” for their individual situations and teaching environments.

Thanks again to SIGCSE for this funding. This funding initiated our work with the K-8 CS community and the support for a K-12 CS community where teachers mentor teachers.