

Code.org

Initiated in 2013, Code.org is a non-profit that aims to increase the accessibility of computer science to more schools, especially to women and underrepresented students of color. They believe that everyone should get the chance to learn computer science, and they offer their curriculum globally for free. [2]

What is Cue and How Is It Different from the Rest?

While resources like Scratch and Code.org exist, they suffer from being completely virtual. Both teach how to code in an entirely online environment. The code simulations are online, so there is no way of visualizing a physical implementation of code that a young learner has generated.

Young children prefer physical feedback to their work. Wonder Workshop has tried to satisfy this requirement via their interactive robots. For our project, we used their 'Cue' robots.



Figure 2. Cue Robot

Cue's interface is block-based like scratch, and Wonder Workshop's vision is similar to that of Code.org. Cue thus combines the best elements of its multiple counterparts and offers a great experience for new coders. [3] The robots are extremely interactive, occasionally attempting to make conversation with the coder - or even starting to sing! - when idle.

These robots can be controlled via code that can be written on their web interface or their mobile app. The code is transmitted via Bluetooth to the robot, so a

young coder can immediately see the implementation of his/her code on the robot. He/she can make the robot navigate, light up LEDs, speak, play music, etc.

With such immediate and physical feedback, Cue reinforces learning much better than its virtual counterparts. It has thus become rapidly popular, and new functionalities are being added to Cue constantly.

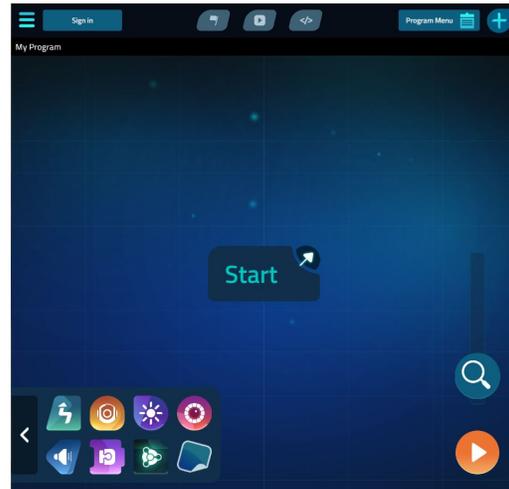


Figure 3. Cue Robot Programming Interface

Conclusion

Computer Science will continue to grow and integrate with our lives. If middle schoolers get more access to computer science material that is tailored towards their age, they will be more willing to develop problem-solving skills and creative thinking, which are vital skills to have to navigate through their careers.

References

- [1] Plotnick, "7 Ways to get Students Interested in Computer Science" [Online]. Available: <https://www.edweek.org/tm/articles/2015/12/07/7-ways-to-get-students-interested-in.html>
- [2] Josh, "What is Code.org?" [Online]. Available: <https://support.code.org/hc/en-us/articles/204784827-What-is-Code-org->
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