Coding to Learn and Create

Creating educational coding tools and teaching resources that support learners with disabilities.

Coding is a great way to learn new skills, create things, and have fun with friends. But many coding tools and activities are not accessible to kids with disabilities—especially those with complex needs such as cognitive, physical, and communication disabilities.

We’re designing new educational coding tools for kids who have been left out of learning. We’re also sharing creative activities, lessons, and projects that help kids learn, develop social and communication skills, and express themselves creatively with code. Many of these resources will work with coding tools that are already popular with kids.

Creative and Collaborative Coding

Kids with disabilities often depend on digital technology and adapted instruction to participate in class, communicate with family, and share with their friends. We’re working to empower all learners to express themselves creatively and collaboratively using coding, art, and digital media. We’re interested in programming as an everyday literacy, and as an expressive medium for developing social, artistic, and communication skills—helping kids apply these skills to other areas of learning and daily life skills. Not just learning to code, but coding to learn and create.

Accessible Tools and Teaching Supports

We are designing:

- Open and accessible coding tools
- Collaborative, arts-based coding activities
- Resources to help educators teach more inclusively
- Mentorship and skill-building opportunities for adults with disabilities

Co-Designing With You

We are an open community of designers, researchers, programmers, and accessibility advocates who are dedicated to co-designing accessible coding tools that support diverse learners, and which can be personalized to fit different needs, contexts, and teaching environments. We need your help to make this vision a reality.

Some ways you can help:

- Take part in our co-design activities, design crits, and brainstorming sessions
- Try out our coding tools and resources, and share your feedback
- Share your own educational resources, lesson plans, or inclusive coding activities
- Contribute to the open source design and development of our inclusive coding tools
- Tell us your stories about the challenges and opportunities of accessible coding

Coding to Learn and Create is led by the Inclusive Design Research Centre at OCAD University with Bridges Canada and an open community of contributors. Supported by Innovation, Science and Economic Development Canada’s Accessible Technology Program.

Recent space activity

- Justin Obara
  0.8 QA Plan updated Jul 08, 2021 • view change

- Adrian Newby-Clark
  0.8 QA Plan updated Jun 24, 2021 • view change

- Michelle D’Souza
  Tetra X 2021 Project updated Jun 14, 2021 • view change
  0.8 QA Plan updated Jun 09, 2021 • view change
  Project Planning Cards updated Jan 25, 2021 • view change

Project Resources

- Project Planning Cards
- Co-design Plan
- Get Involved
- Source Code Repository
- Issue Tracker
- Mailing List
- Exploring Existing Coding Environments
- Working Documents (Google Drive)