# Creator Bot Virtual learning resources

Creating safe and effective remote learning experiences



# The COVID-19 pandemic has changed the landscape of teaching and learning

The COVID-19 pandemic has dramatically changed the landscape of learning. With this document Creator Bots wants to share some remote learning ideas for implementing and

improving remote learning for K-12 students



# How to improve the quality of remote learning?

When it comes to distance learning STEM experiences, they don't all have to be purely academic. Despite physical distance, students can still explore, enjoy and learn through engaging activities that enhance their natural inquiry to explore and create. Capitalizing on students' curiosity is the key to using their natural tendency of having a lot of questions about things and creating new paths of learning.

# MAKE REMOTE LEARNING FUN AND ENGAGING

Student engagement has become a key challenge as educators and school systems work to get students to attend, participate, and demonstrate mastery in remote learning environments. Since students have been spending more and more on-screen time, **making every virtual moment count is key to keeping students excited about their learning. We provide lessons that** create a space where students can share, participate and feel related to the course topics and activities.



### Virtual projects

### SIMULATORS ARE THE KEY!

One way to make virtual learning feel more exciting and close is to make use of some of the simulation tools we provide curricula for that allow us to learn and teach almost as if we were learning in-person. Creators Bots can use the TinkerCAD<sup>™</sup> virtual circuit builder to create and simulate circuits using code! Along with our Helpful Guide, this online platform allows students to build circuits and then program them using block or text code in Arduino.



#### **AWAKEN YOUR STUDENTS' CURIOSITY**

Give them little clues about the project, and ask them to explore into their prior knowledge on the topic.

#### MAKE THEM EXPLORE IN PERSON

Have them explore about the topic of the class in "the real world" to find examples in their day to day at home or in things that they know.

### CREATE

Ask them to create and imagine new solutions and opportunities that include science, technology, engineering or math and share their creations.

### Lesson ideas

#### **ENCOURAGE YOUR STUDENTS TO**

#### HAVE A CHALLENGE OR PROBLEM FOR THEM TO CREATE AND SOLVE

Why not have the kids come up with a challenge idea? It can be wild and crazy or something practical and impactful. Then they can discuss together in a breakout room.

The idea is to take them through the whole creative, problem solving process. Identify the problem, list what tools and equipment are available, identify strengths and weaknesses for the situation, brainstorm possible solutions. Start testing and building, and adjust as needed until a viable solution is found and agreed upon as a group. Let their imagination run free



# **Engage with fun activities**

# An example of our lessons





It looks like some other robots on Mars have gotten into some trouble with each other. **Strap on your police outfit and try to break up the fight!** 

Use your LEDs connected to pins 4 and 7. Attach a potentiometer to your Police lights so you can change the speed of your strobing lights. Use the blocks to your right to create your police strobe light.

Use the Simulator to connect your LEDs and potentiometer or use your physical circuits if you have access to them from where you are learning.

### MARS CHALLENGE: POLICE LIGHTS



### IMAGINE - BUILD - CODE

CREATOR BOTS IS THE FIRST ARDUINO-POWERED ROBOT THAT TEACHES ELECTRICAL ENGINEERING, PROGRAMMING, 3D MODELING AND 3D PRINTING, ALIGNED TO COMPUTER SCIENCE STANDARDS. MAKE LEARNING FUN AND TEACHING EASY, REQUEST A DEMO AND TAKE YOUR STEM PROGRAM CLASSES TO THE NEXT LEVEL

REQUEST A DEMO







