## **Caring For Root**

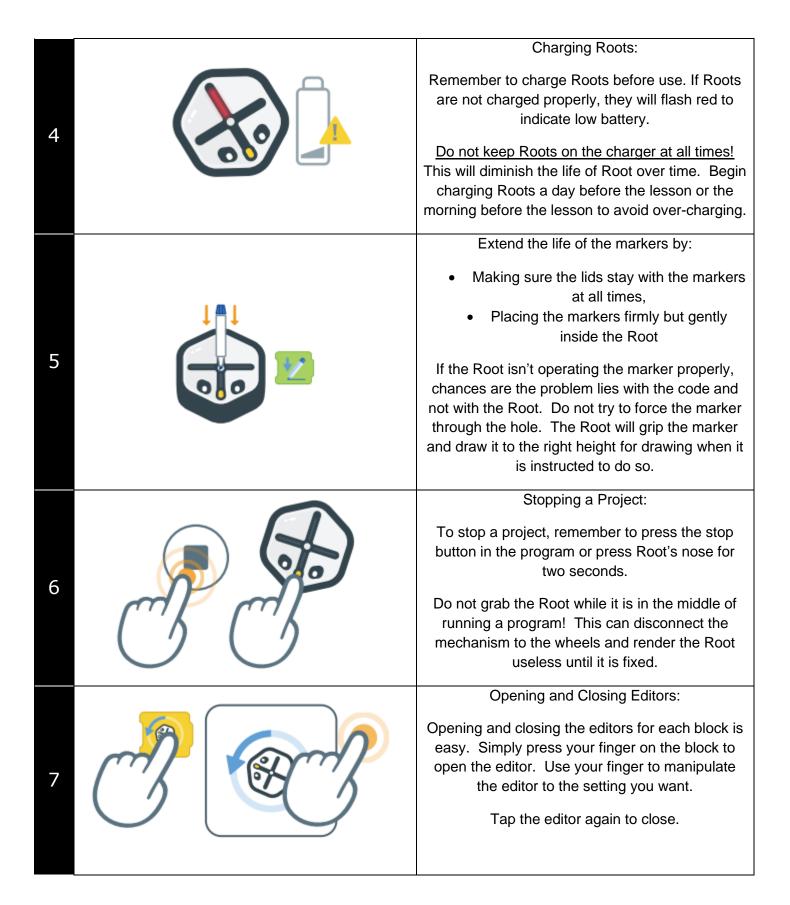
## Introduction

Maximize Root's efficiency and lifespan by proper care and maintenance. Teach students proper care of the Root Robot before each lesson. Care for sensitive technology is an important part of the ADST curriculum, too!

## Materials:

Ipads (enough for one to every two students), Root Robots (1:2 students), laminated mats (1:2 students. Available in LRC Root kits), dry erase markers (in LRC Root kits), dry towels or paper towel to erase lines (1:2 students), Large tables or solid, flat, clean surface to place mats.

Steps			
1		Before Using: Clean any surfaces on which Root will run. This means removing all dirt, debris, and materials that will clog Root's wheels or otherwise compromise Root's sensors. It is best to place the mats on a clean, dry, flat surface to guarantee maximum efficiency and decrease the chances that Root will break down.	
2		Care for Sensors: Roots have sensors near their wheels. The Root is programmed to stop if they sense an edge. Make sure the sensors are kept clean by wiping them down before and after each lesson with a clean, dry cloth. This will ensure that Root functions properly.	
3		Dry-Erase: Roots come with two dry-erase markers, 1 blue and 1 green. Keep the markers, mats, and the bots in good shape by reminding students to use a clean, DRY cloth to wipe them down when done. Use paper towel, microfiber cloths, or kleenex. Fingers are <u>not</u> dry-erasers!!	



	Folding the mats:
8	It is important to fold the mats the same way each day. This reduces the likelihood that the mats will buckle over time, activating the Roots' edge sensors.
	Have students hold the open mat in front of them, with the 'outer space' side facing outwards. Fold inwards so the blank side faces in and the space side faces out. Then, fold again on the long side to create one long strip, four blocks long. At this point, have students fold the mat in an accordion shape, creating an 'M' or a 'W' before folding into one square.
9	Cleaning the Eraser: If your students have used the eraser function on the whiteboard (they cannot use it on the mats), have them remove the eraser pad underneath the Root and wash it with soap and water. Wait for the pad to dry before using the Root again.
10	Help With Blocks: Drag any block to the Help function on the upper right hand side of your project screen to see what that block can do.
	Turning Root On and Off: Sometimes, you will need to force shutdown of
11	Root because students are connecting and disconnecting to other team's bots. If you are concerned this is happening, just press on Root's nose for 2 seconds to turn off. This will disconnect the bot from whomever is currently connected to the bot. Wait 30 seconds and turn Root on again.



- If student robots are moving slowly, have them go completely out of the app (press the home button) to disconnect from their robot. When they go back in, they can reconnect and the robot should go much faster.
- For best results, have students rename their robot at the beginning of the lesson. This way, when they accidentally disconnect from their robot (as they inevitably will), they will easily be able to find their bot on the list. The robot re-naming function is available in the 'Hello' program (see below for icon)



3. Students can also use their pens to design their robot to set it apart from other bots. Just remember to wipe clean with a dry cloth afterward!