

EDISON ROBOTS

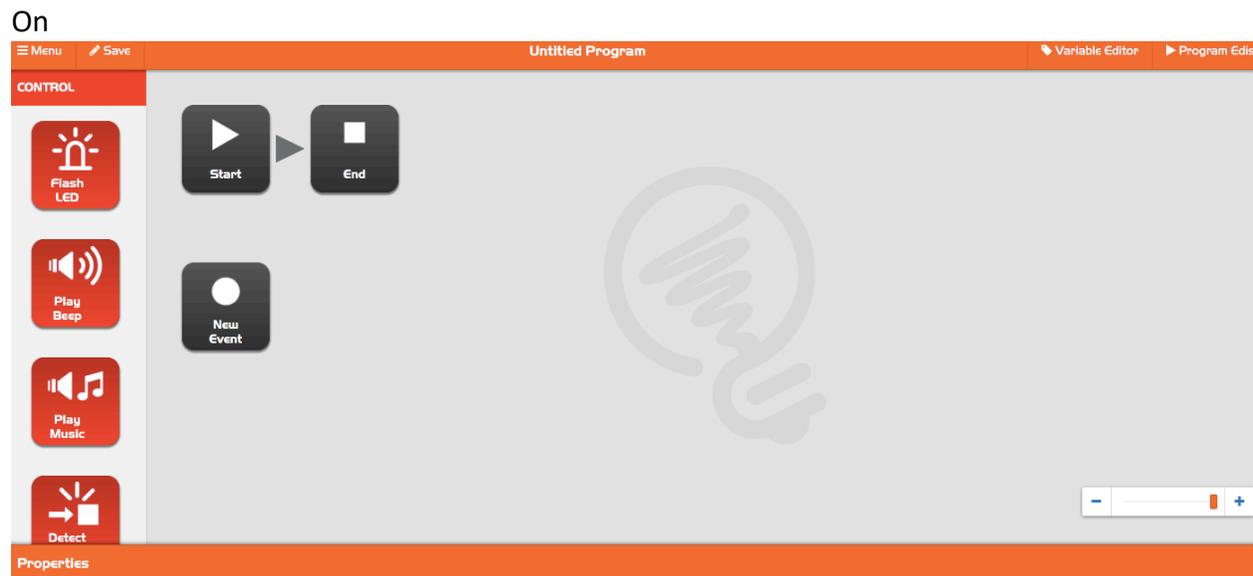
Edison Robots are a small robot you can CODE to run AUTONOMOUS programs that solve specific challenges.

To Program an EDISON ROBOT please get into groups of 3. Open ChromeBooks to the website called:

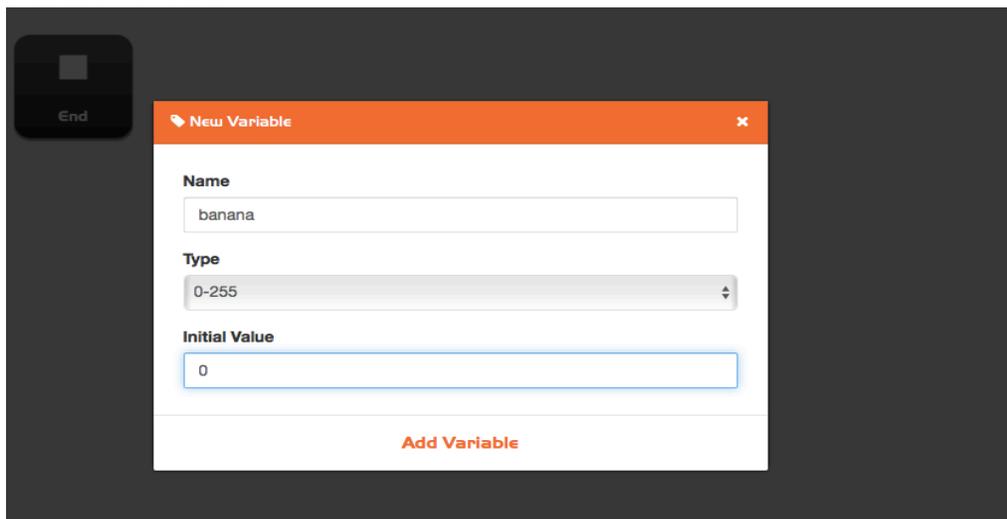
<https://edwareapp.com>

You can do a search for “EdWareapp” it will be the first website to come up

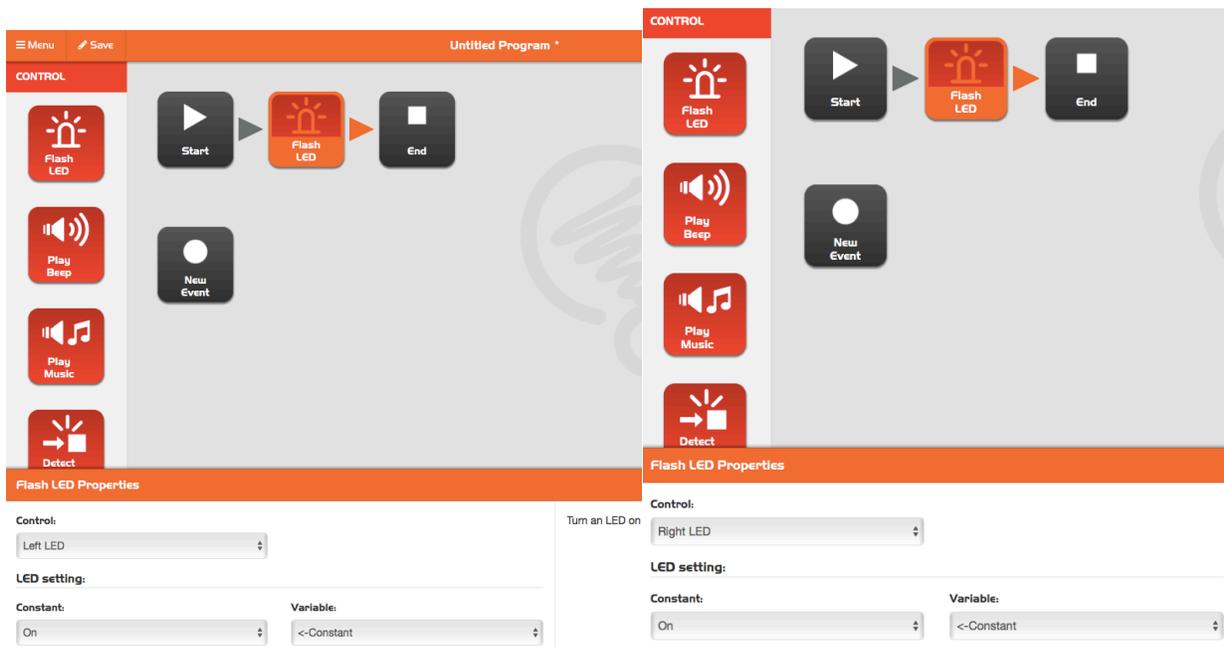
Click the button: LAUNCH EDWAREAPP and it will take you to the coding interface. It will look like this:



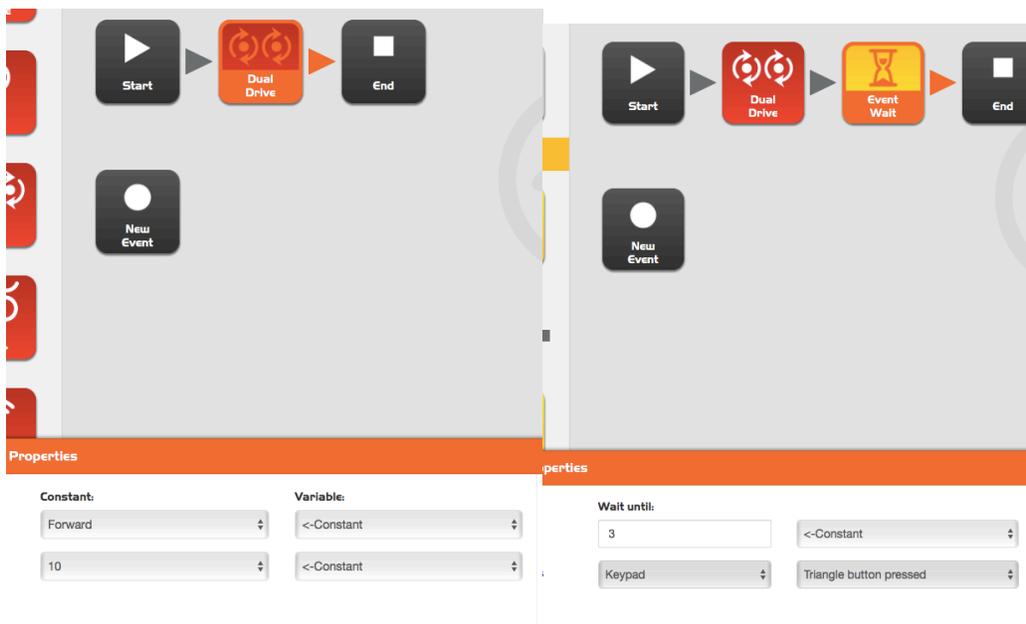
On the upper right hand part of the screen, click the button called Variable Editor. Please create a variable:



- To write a simple program you use blocks to program, and when the block is selected, it opens a dialogue window at the bottom of the screen.



- When using an action block always tell it how long to do it with a event wait block

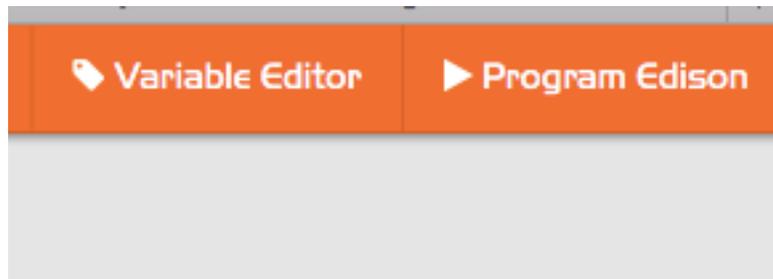


Downloading the Program to your Edison.

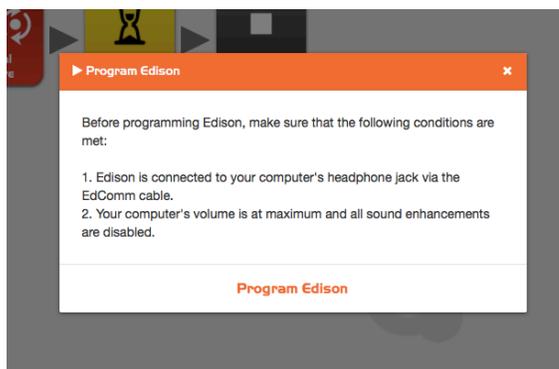
- The Edison can only hold one program at a time.
- The Edison is programmed through SOUND like old school modems.
- You will want to do multiple tests of your program, so you will download a new version on your robot EVERY time you make a change

To Down load a program follow these steps:

1. Finish your program and go to the button at the top right hand side of your screen called "Program Edison"



2. When you press the button EDWARE APP will make a .WAV file (a sound file).
3. Plug the two pronged, rubber plug into the matching two holes at the bottom of the Edison.
4. Press the CIRCLE button on the top of the Edison until both LED lights are solidly ON
5. Plug the Sound plug into the headphone jack on the chrome book
 - a. MAKE SURE IT'S THE HEADPHONE JACK
 - b. MAKE SURE THE SOUND IS TURNED ALL THE WAY UP on your chrome book
 - c. MAKE SURE THE PLUGS ARE ALL IN SECURELY
 - d. MAKE SURE BOTH LED LIGHTS ARE SOLID ON
6. Press the Program Edison button on the now open dialogue box:



TROUBLESHOOTING

DO NOT FORCE WHEELS TO TURN OR LET THE EDISON RUN AGAINST A WALL. BOTH COULD STRIP THE GEARS OR BURNOUT THE MOTOR

When you are programming, things go wrong, and you will have to troubleshoot to solve the problem. Here is a suggested order to check when things are going wrong:

Cant't Get Started?

1. Accurately define the problem. "This doesn't work" isn't helpful but "When I push the triangle button, nothing happens." Or "The Edison doesn't flash when I download" are more helpful
2. Check for power. Is your computer turned on? Will the lights flash on your Edison? DON'T FORGET THE I/O reset switch on the bottom of your robot* if it still doesn't turn on Check Batteries
3. Check for internet connections.
4. Is the volume all the way up on your computer or Chromebook?
5. Are the eComm cords pushed into the ports fully on BOTH ends.
6. Can you hear the "modem" sound when you program.
7. Do the lights flash after program

Program doesn't work the way I want it to:

1. Talk through what each block does
2. Double check each dialogue box
3. Make changes and test.
4. Make single small changes and test.
5. Have you uploaded your program after each change?
6. Double check your upload troubleshooting (3-7 on Can't get started)

Mechanical problems

1. CHECK BATTERIES -- NOTE with batteries. AAA batteries do not last very long and a low battery problem can look like a programming problem. When testing batteries, please use known good batteries before opening new ones. (Don't throw batteries out over a programming error)
2. Does your Edison Veer to one side? Check that the pivot piece is in place. Are both wheels turning? Try downloading another program.
3. **Do both wheels of the Edison work? (are you programming both wheels? Use dual drive). If this is happening give to teacher for repairs.
4. ** Do the wheels seem to randomly stop and start? Check batteries first then give to teacher for repairs.