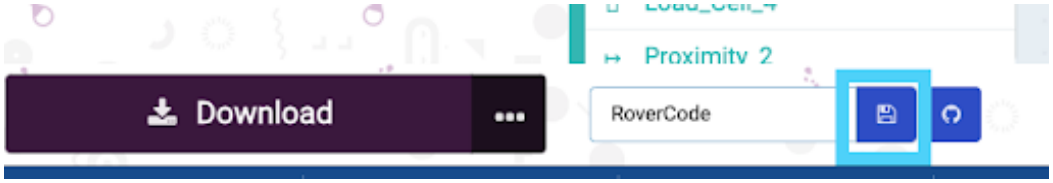
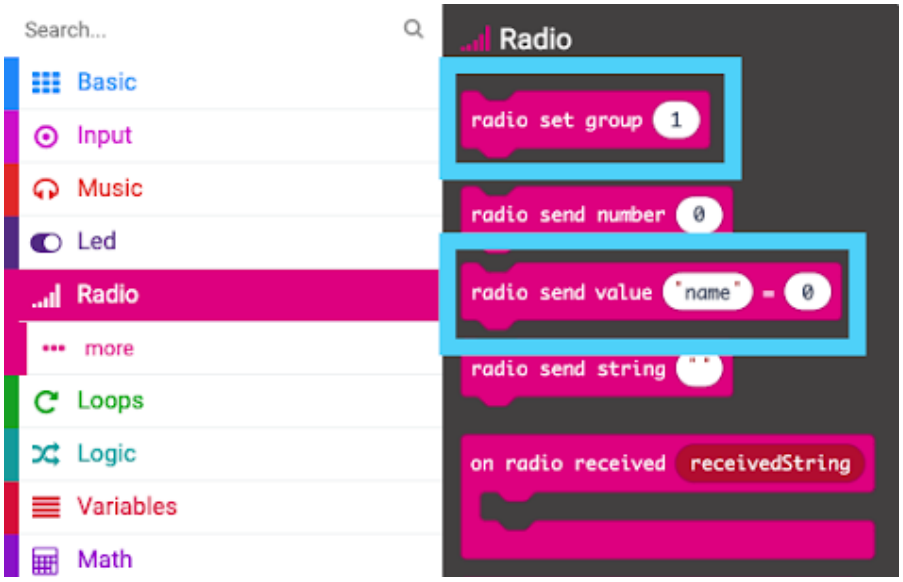
Mission: Mars Final Steps

You've built your rover, you can drive it over WiFi to complete your missions, but how do you report that data back to our Mars base station for verification?

First, with all of the code we're packing onto these micro:bits and b.Boards for these missions, some have run into a bit of memory trouble. To fix it, we are asking that you use code.brilliantlabs.ca for your rover code if you find you're getting a compilation error.
You can save your code and import it on the new IDE as shown below:

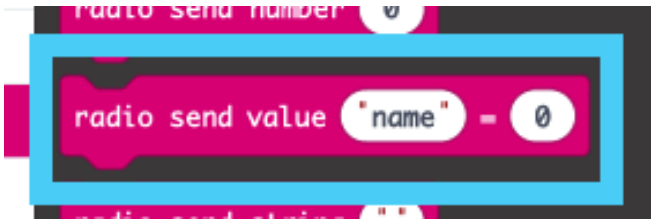


Once you're up and running on code.brilliantlabs.ca, it's time to get your rover to communicate with the base station using the radio blocks. To find the radio blocks, look in the Radio toolbox as shown below:



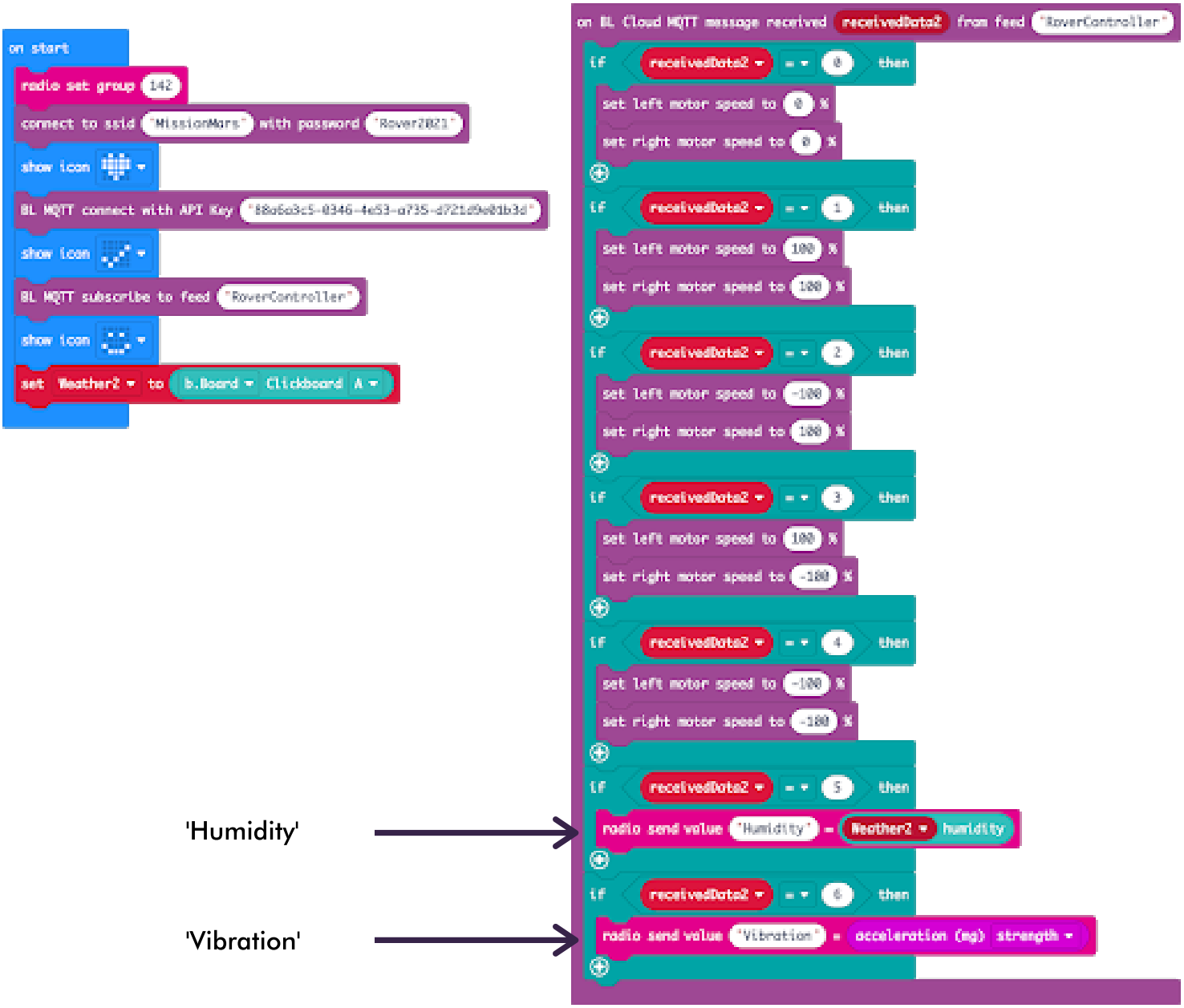
Put the 'radio set group' into your 'on start' block and set it to 142.

Now every time you want to report your results from a mission, use the 'radio send value __= 0' block and be sure to put the exact name as specified at the end of this guide for each mission.



To help you control when to gather and send mission data, we suggest adding more button widgets on cloud-alpha.brilliantlabs.ca to trigger when to send the results of a mission.

Below is an example of how you might drive your rover while at the same time listening for numbers '5' and '6' for reporting the humidity and seismic activity values:



How you calculate your values and when you decide to send them is up to you. Just be sure to use the exact names we listed below for each mission when you fill in your 'radio send value' and to send them before your mission time slot is over. We will compare your mission values with those at the base station to determine validity.

Mission 1: `radio send value` `Temperature` *(Please send in Celsius)*

Mission 2: `radio send value` `Humidity`

Mission 3: `radio send value` `Pressure`

Mission 4: `radio send value` `Sound` *Hint:Make sure to measure sound levels when you're not driving*

Mission 5: `radio send value` `Water`

Mission 6: `radio send value` `Pressure`

Mission 7: `radio send value` `Vibration` *Hint: Make sure you're measuring the vibration levels of Mars and not the vibrations of your rover from driving*

Mission 8: `radio send value` `Light`

Mission 9: `radio send value` `CliffDistance` *Report the distance to the cliff and the distance to the largest boulder from your starting position in the landing crater*

`radio send value` `BoulderDistance`

Mission 10: `radio send value` `Magnetic` *For this mission, please send a value of 1 while you are near a rock that you have verified as magnetic. Your position will be noted when the 1 is received with the word 'Magnetic'*