Sphero Bolt Workshop

Task: Program your Sphero Bolt to move around and follow a course.

Setup Instructions

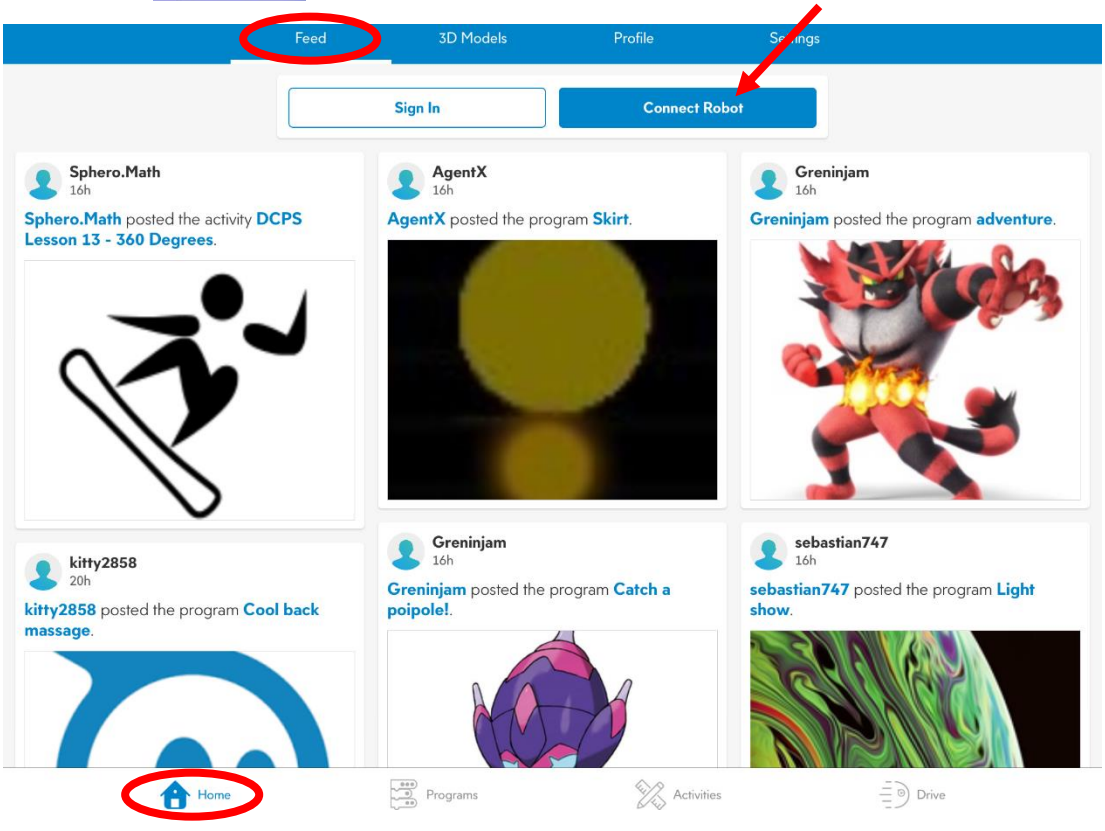
Note: You should first set up a course for the Bolt to follow, such as by using a mat, Maze Tape (to make shapes, for example), obstacles or lines or markers on the floor (such as in a sports hall).

1. On your iPad, make sure that Bluetooth is turned on – you'll need this to connect to the Bolt!

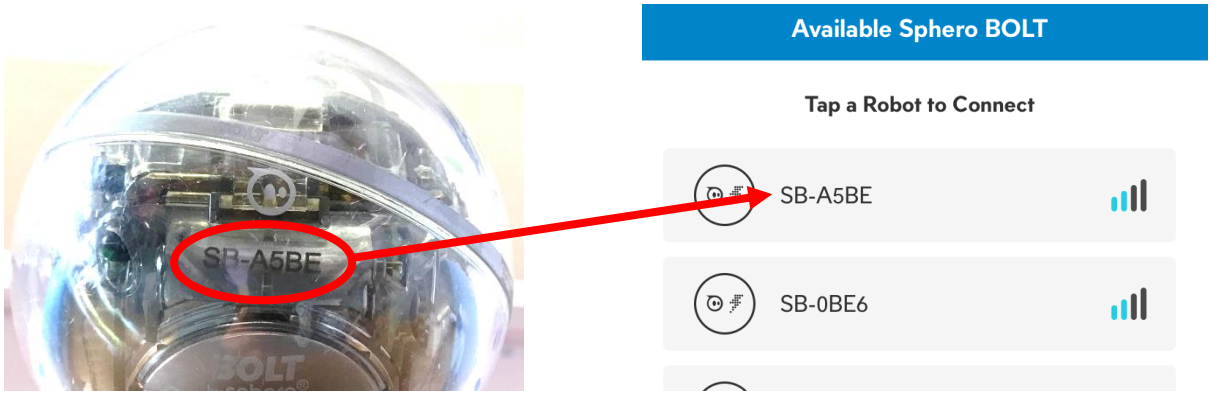
Note: You can also turn on Bluetooth in *Settings*.

2. Open the **Sphero Edu** app.

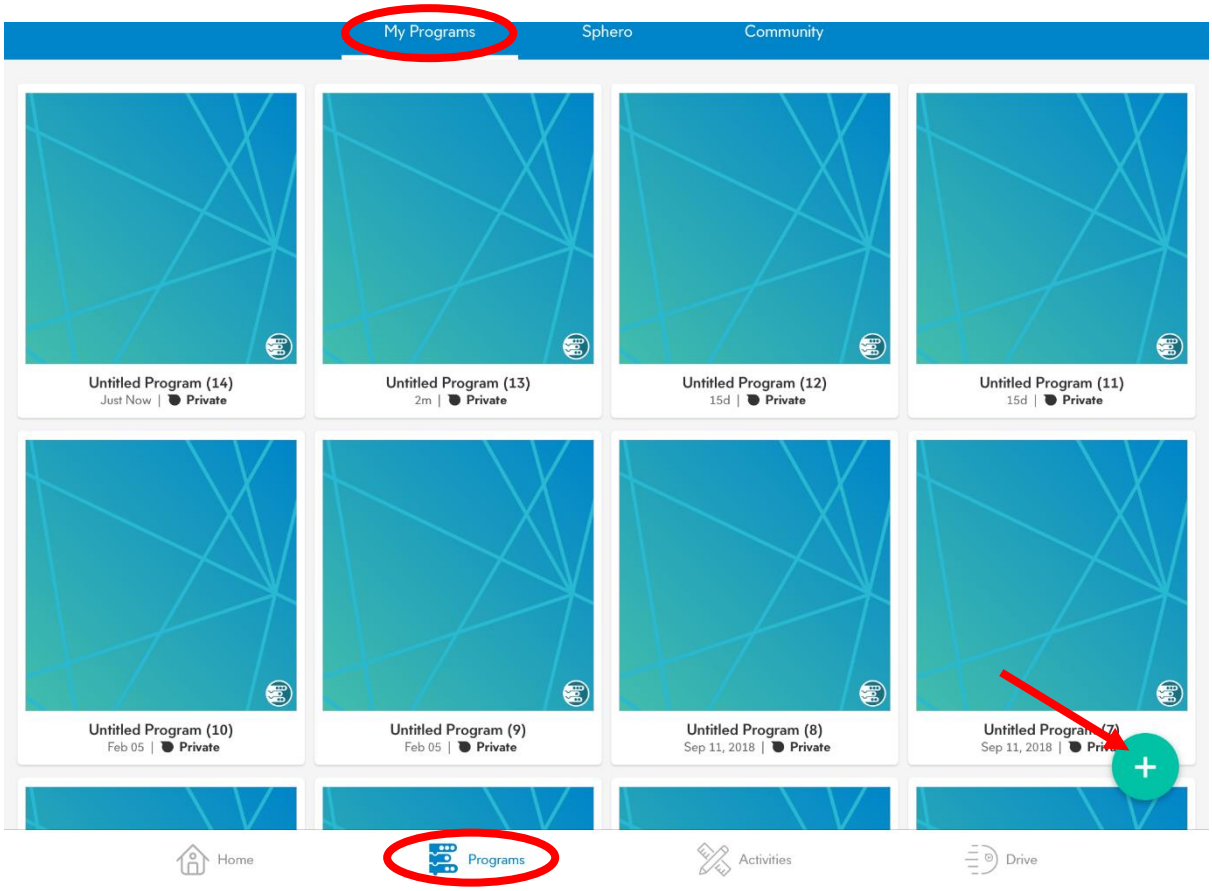
3. On the **Feed** tab of the **Home** section, tap **Connect Robot**.



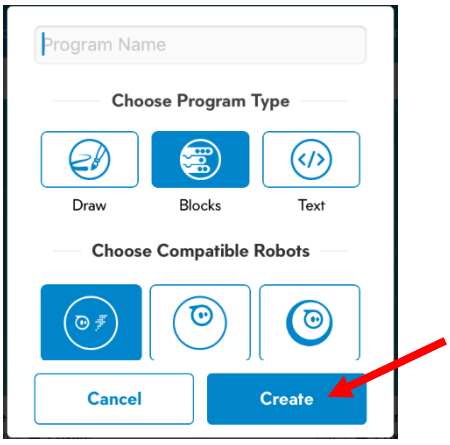
4. A list of robots appears – find the name on your Bolt and tap the one in the list that it matches!



5. Go to the **Programs** section. In the **My Programs** tab, tap the **+** icon in the bottom right corner.

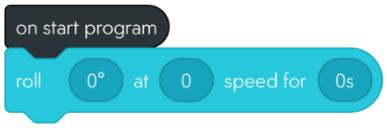


6. Enter a name for your program if you'd like to, then simply tap **Create** to get started!

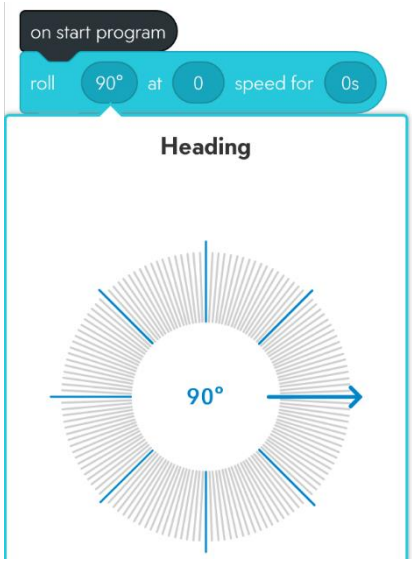


Workshop Instructions

1. This is the screen where you will program your Sphero Bolt! There are lots of things it can do, but let's start by going to the **Movements** tab and dragging a **roll** block to **on start program**.



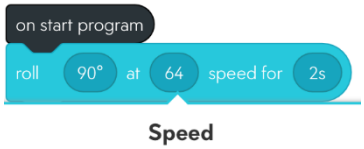
2. Once you've joined the **roll** block to **on start program**, you'll notice three circles that say **0**. The numbers in these circles affect how the Bolt moves, so we'll take a look at them next.



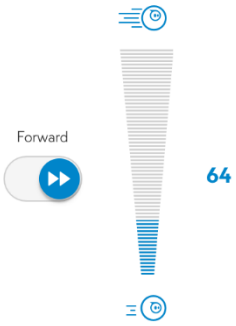
3. Tap the first circle. This affects the **Heading**, which is the **direction** the Bolt moves in.

For example, if you wanted to go to the right, you would drag the arrow to the right, and the heading would be 90 degrees.

Choose the heading that you think is right for the course you're following!

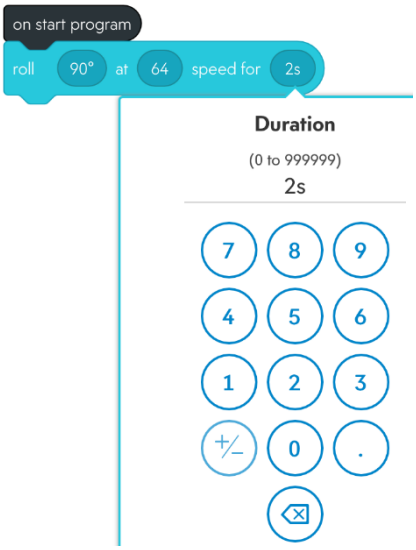


Speed



4. Now tap the next circle. This sets the **Speed** and affects how fast your Bolt will go.

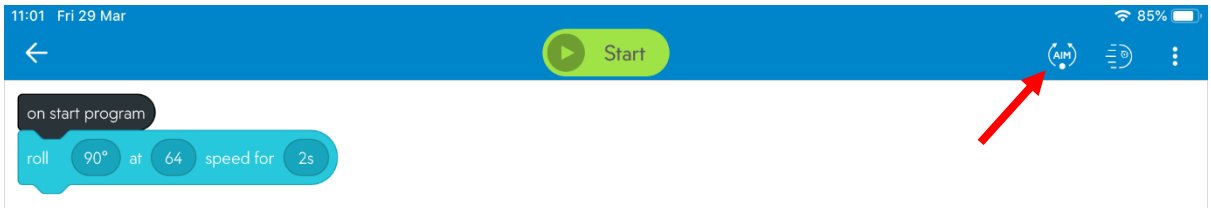
Choose a speed – but remember, if it's too fast, your Bolt might travel too far!



5. Tap the last circle. This affects the **Duration**, which is how long your Bolt will move for.

Use the numbers to set a duration.

6. Before you try your code, press the **AIM** button near the top-right corner.



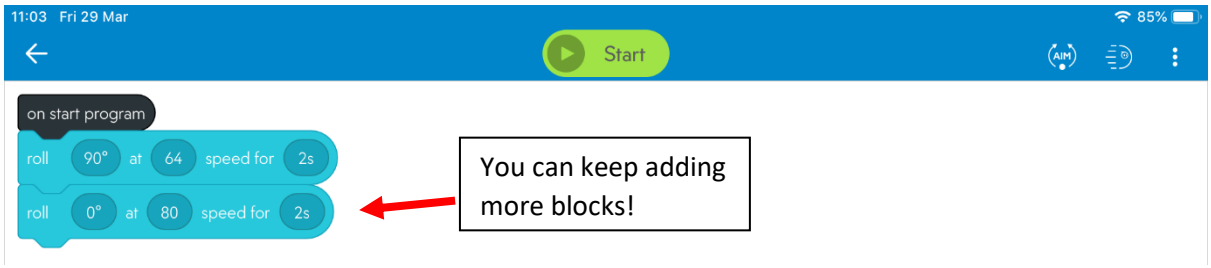
7. Drag the circle around until the blue light on the Bolt is facing you. This makes sure that the Bolt travels correctly at the heading you chose (if you don't aim the Bolt, it might go in completely the wrong direction!).

8. Now that you've aimed your Bolt, you won't need to aim it again unless you take it somewhere else. Press **Start** to try out your code!

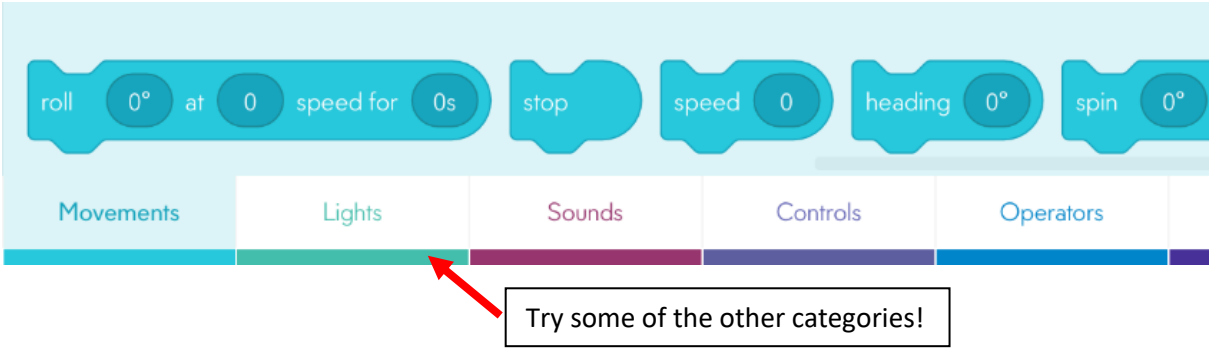
9. Did everything work perfectly? If not, try changing the **Heading**, **Speed** and **Duration**!

10. Once you're happy with your first block of code, you can add another **roll** block underneath the first one. This means that, once your Bolt has completed its first movement, it will carry on with the second block you've added.

Make sure you set the **Heading**, **Speed** and **Duration** for your second block too!



11. Now you can keep adding more **roll** blocks to make your Bolt travel around the course you've set up. You can try experimenting with other blocks and categories as well, like **Lights** and **Sounds**. You can also find a useful **delay** block in the **Controls** section, which you can use to make the Bolt stop between movements.



Now try some other blocks and see what else you can do with the Sphero Bolt!