

Lesson 4 - Variables

<http://www.stencyl.com/learn/act4/>

In this activity, you'll take the motion logic you made in the previous lesson and rework it into a behavior that you can reuse and configure.

1 Get Started

- After launching Stencyl, open up **Project 4**.
(Can't find Project 4? Visit <http://www.stencyl.com/learn/downloads/> to get it)
- **Run the game.** It's our Hero, but he can't move!

2 Walking

- Open the Actor Type called **Hero**.
- Flip to its **Behaviors** page.
- Click **Add Behavior** and pick out **4WayMovement**.
- Now, run the game. Notice that the Hero can now walk around using the arrow keys.

3 Add a Variable for the Walking Speed

Now, we're going to modify the behavior, so that the walking speed can be adjusted using an attribute.

- First, open the **4WayMovement** behavior.
- Flip to the **Attributes** category.
- Click **Create an Attribute**.
- Name it **Walking Speed** and set the type to **Number**. Click OK.
- This will make a blue block appear. This block lets you use this attribute in your code.



- Now, stick the blue Walking Speed block into the behavior, so that it *represents the speed at which the character moves. Where do you think it goes?* (Hint: It goes into 4 places.)
- Run the game.

Huh? The character isn't moving at all now! We'll find out why.

4 Configure the Walking Speed

What did we forget to do? We forgot to configure the Walking Speed attribute. That's why the actor doesn't move because his speed is 0. Let's fix that.

- Close and then reopen the **Hero** actor.
- Flip back to the its **Behaviors** page.
- Now, you'll see the configuration page for the **4WayMovement** behavior. Notice that *we never provided a value for the Walking Speed attribute* we just added, so it started at 0.
- **Enter in a value** (such as 15) into the **Walking Speed** field and then run the game.
- Then, enter in a different value and observe how that affects his walking speed.

Mini-Challenge

Suppose that we wanted to make confuse the player by making 4WayMovement act in reverse. Up would move down, down would move up, and so forth.

Without changing the code for the 4WayMovement behavior, how could you accomplish this?

Your Hero now has a flexible walking behavior you can use to make him walk faster or slower. Put together everything you've learned so far to complete the extra activities.