

# Play Catch!

(advanced Scratch project)

## What's Our Goal?

Using the intermediate ball throwing program can we have two sprites play catch?

## Getting Setup

1. Add a third sprite (I chose Dan). You'll probably need to flip him horizontally so he's facing Catherine



2. Your basketball code should look something like this right now:



3. We don't care about the ball hitting the edge anymore. We want Dan to catch the ball. That's easy enough. Change the dropdown on your **touching Sensor** to read "Dan".

Okay, so now Dan catches the ball. Don't be a ball hog, though, Dan. Throw it back! Without turning this card over can you figure out how to make Dan share?

*Hint: you should be able to (more or less) reuse code you've already written.*

## Keep Coding!

When you're finished with this project why not keep going?!?

- </> Visit [scratch.mit.edu](http://scratch.mit.edu) for lots more examples.
- </> Check out [www.bizstreamacademy.com/resources](http://www.bizstreamacademy.com/resources) for other ways to learn to code!
- </> Add more features to this program and publish it online!

When you think you've got it flip the card over



## Pass The Ball Back!

Did you get it? YES! I knew you would! Just in case you're still Scratching your head (see what I did there?) check out the below instructions.

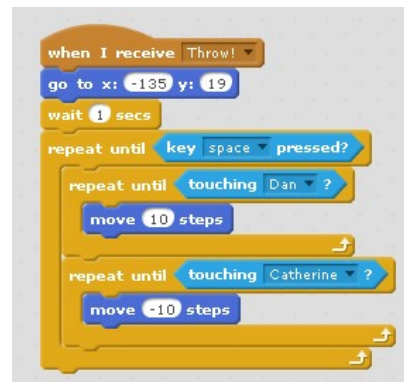
4. All we really need to do is reverse what happens when Catherine throws the ball to Dan. For that we just right click on the **repeat until** block and choose "duplicate".
5. Now change the touching sensor to Catherine instead of Dan and make the ball move backwards (add a negative to the number).



Nice!

## Keep the Game Going

6. To make the game last longer we just need Catherine and Dan to keep doing the same thing over and over, right? We may even tell them to **repeat until** we tell them to stop, right? Are my clues obvious enough?
7. There are lots of **repeat** options. My favorite for this is using another **repeat until** with a **key pressed** block as the **sensor**. Once you hit the green flag Catherine and Dan will play catch until the **sensor** is satisfied.



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We may even feature your project on our site!