

IF YOU DO NOT FOLLOW THE DIRECTIONS, YOU WILL NOT EARN THE CREDIT!

READ ALL THE WAY THROUGH THESE INSTRUCTIONS BEFORE YOU BEGIN!

Note that occasional problems and unexpected behaviors have been observed when using Google Chrome to access some Zooniverse projects. If you are using Chrome and do not get the expected behaviors, switch to another web browser such as Firefox.

This exercise allows you to participate in real astronomical research by helping astronomers use the transit method to search for planets around other stars in our galaxy. In order to receive full credit you must classify a minimum of 20 stars and print your status page when you are finished. You do not have to complete all 20 classifications at once; you may log in to and out of the site whenever you need to. Classifications are tracked cumulatively. Similarly, you do not have to complete all of the tutorial at once; you may log in to and out of the site whenever you need to and pick up where you left off. Read all the way through these instructions, as well as the online tutorial they will point you to, before starting.

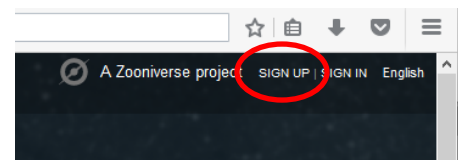
NOTE: This assignment and the Galaxy Zoo assignment are both part of the Zooniverse (<http://zooniverse.org>). If you have an account for any of the 59 (at the time of this document) Zooniverse projects then you already have the account you need and do not need to create a new one. **VERY IMPORTANT! In order to earn credit for this assignment, your displayed name must be the same as your SURF ID.** To change your displayed name, follow the directions that go with the appropriate link below.

Click a link below to skip to the section you need.

- [Registering for an account](#)
- [If you already have an account but need to change your displayed name](#)
- [If you already have an account with the correct displayed name](#)
- [Viewing the tutorial](#)
- [Once you've reviewed the tutorial and are ready to start classifying](#)
- [Once you've reached at least 20 classifications](#)

REGISTERING FOR AN ACCOUNT

Point your web browser to the main Planet Hunters page, <http://planethunters.org>. In the menu across the top you will see "SIGN UP" on the right-hand side.



When you click this, you will get a popup box to create a Zooniverse account. **VERY IMPORTANT! In order to earn credit for this assignment, your displayed name must be the same as your SURF ID.** This is most easily accomplished by making the "Username" field be the

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same as your SURF ID. Fill in the information; you do not need to fill in the “Real name” box if you don’t want to.

If your registration was successful you will be returned to the Planet Hunters main page and it will show you as logged in at the upper right of the page where you previously clicked to sign up. You will see your username and “SIGN OUT” underneath it.

If the attempt to create the account is unsuccessful, the pop-up window will stay and display an error message. Correct the issue(s) and resubmit until your registration is successful and you are shown as logged in.

Once you have successfully created your account, you now have an account in the “Zooniverse” (<http://zooniverse.org>) that is valid for any of its many projects. When you have time, log in to the Zooniverse main page and explore. There are projects about history, literature, the arts, animals, medicine, etc. (We’re using our crowdsourcing powers for good! 😊)

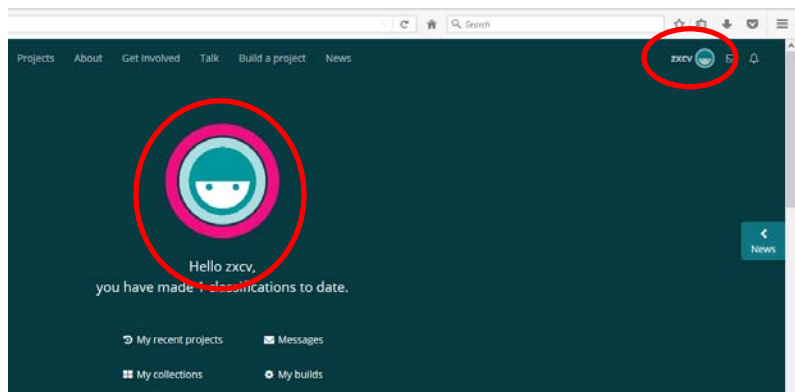
IF YOU ALREADY HAVE AN ACCOUNT BUT NEED TO CHANGE YOUR DISPLAYED NAME

Point your browser to the main Zooniverse page (<http://zooniverse.org>) and click the “Sign in” button at the top right of the page. When you click this, you will get a popup box to sign in.



Upon successful sign in you will be returned to your personal Zooniverse page. You will see your avatar and current displayed name both in the middle of the page and in the upper right corner.

VERY IMPORTANT! In order to earn credit for this assignment, your displayed name must be the same as your SURF ID. If your current displayed name is not your SURF ID then you must change it (you can change it back to whatever you like after you’ve submitted the assignment).



Click your displayed name and/or avatar at the top right of the page to get the drop-down menu. Choose “Settings” and you will be taken to the “Account Information” page (“Account Information” will be in bold face print). Check the “DISPLAY NAME” field. If it is not already your SURF ID, change it to be so.

Settings

Account Information

Customize Profile

Email

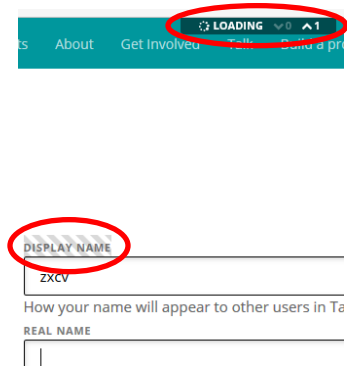
DISPLAY NAME
zxcv
How your name will appear
REAL NAME
Public; we'll use this to g

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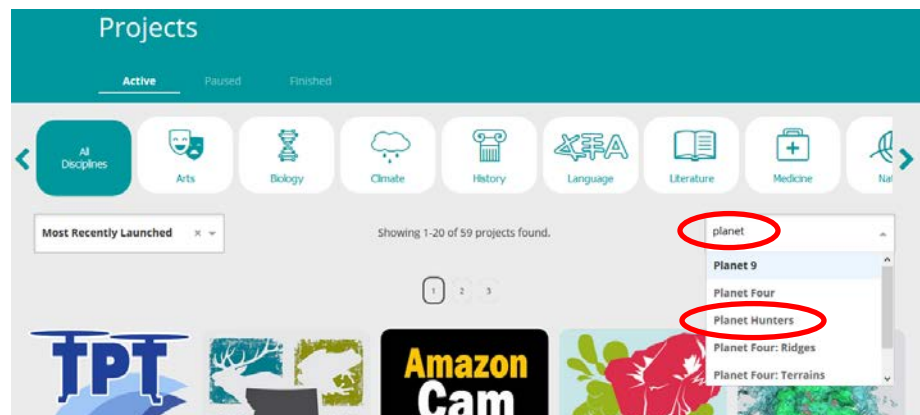
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To submit the change simply click inside the “REAL NAME” field below it and watch for the telltale signs that the change is being saved: the text “DISPLAY NAME” will be superimposed with moving grey diagonal lines and finally be highlighted in pale green when the change is complete and saved. The green highlight will only last for a second or two before it automatically disappears. You may also get a glimpse of a very tiny dark “LOADING” box at the center of the top of the page. It lasts about the same amount of time as the moving diagonal lines described above so you may not notice all of them at once though they all will occur.

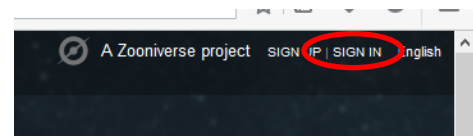


To double-check that your displayed name was really changed and saved, simply click on another menu item underneath “Settings” like “Customize Profile” and when that page loads, your new displayed name will show in the top right corner with your avatar.

Once your displayed name is your SURF ID you are ready to access Planet Hunters and begin the tutorial. Click “Projects” in the blue menu bar across the top and wait for that page to load. Below the main blue part of the page you will see a horizontal scroll bar with the disciplines categorizing the various Zooniverse projects. Put your cursor in the search box where it says “Name:” at below right of the discipline scrollbar. Type “planet” in the box and then click “Planet Hunters” when it pops up in the drop-down list. You will be taken to the main Planet Hunters page (<http://planethunters.org>).



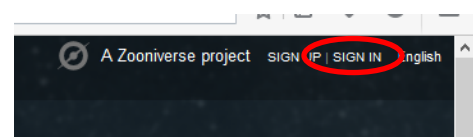
Once on the main Planet Hunters page it may or may not show you as logged in. Check the top right of the page. If you are logged in you will see your display name and “SIGN OUT” underneath it. If you are not logged in you will see a link to “SIGN IN”.



Once you are signed in proceed with the [tutorial](#).

IF YOU ALREADY HAVE AN ACCOUNT WITH THE CORRECT DISPLAYED NAME

From the main Planet Hunters page (<http://planethunters.org>) click “SIGN IN” at the top right



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of the page and log in. In the “Username” box you must enter either your username (**not** your displayed name) or the email address that you used to register.

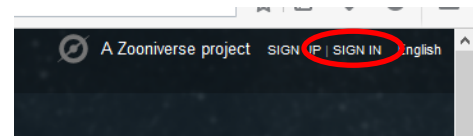
Once you are successfully signed in you will see your displayed name at the top right of the page where you previously clicked to sign in. It will say “SIGN OUT” underneath your displayed name. **VERY IMPORTANT!** In order to earn credit for this assignment, your displayed name must be the same as your SURF ID. To change your displayed name, follow the directions that go with the appropriate [link above](#).

VIEWING THE TUTORIAL

Log in first, before viewing the tutorial materials! This way you will avoid doing work that you don’t get credit for in your tally because you aren’t logged in.

The “tutorial” is really three separate things to help you understand what you will be doing and why. Classifying will be extremely confusing for you if you do not take the time to go through these tutorial materials slowly and carefully. For whatever it’s worth, *if you do go through the tutorial materials properly, know that it then will not take very long at all to complete your minimum of 20 classifications (much less time than it took you to go through the tutorials).*

From the main Planet Hunters page (<http://planethunters.org>) click “SIGN IN” at the top right of the page and log in. In the “Username” box you must enter either your username (**not** your displayed name) or the email address that you used to register.



Once you are successfully signed in you will see your displayed name at the top right of the page where you previously clicked to sign in. It will say “SIGN OUT” underneath your displayed name. **VERY IMPORTANT!** In order to earn credit for this assignment, your displayed name must be the same as your SURF ID. To change your displayed name, follow the directions that go with the appropriate [link above](#).

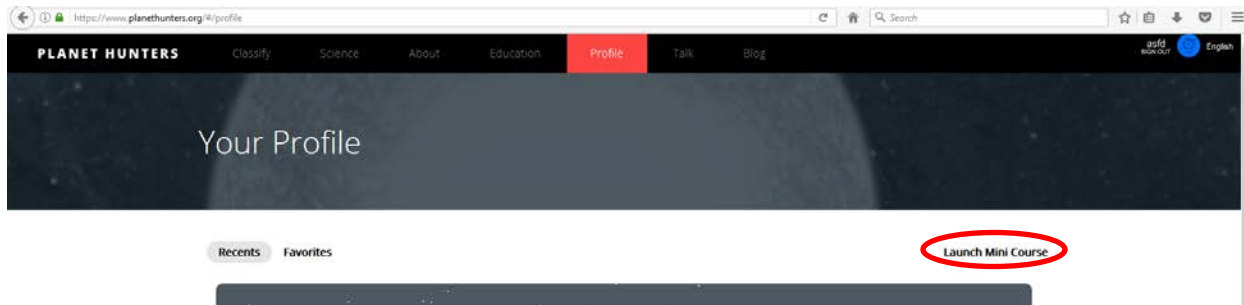
TUTORIAL PART I: THE SCIENCE

Once you are logged in to the main Planet Hunters page (<http://planethunters.org>), click the “Science” link in the menu bar across the top of the page. When the page loads you will see the “Science” link you clicked on highlighted in red and will be on the “Our Mission” subpage of the “Science” section. You will see “Our Mission” highlighted in blue in the submenu bar in white underneath “The Science.”

Once you’ve read the “Our Mission” page, click “Your Task” in the blue submenu bar and read that page. When finished with that, click “Transits” in the blue submenu bar and read that page. Then you’re finished with part I of the “tutorial.”

TUTORIAL PART II: MINI-COURSE

Once you are logged in to the main Planet Hunters page (<http://planethunters.org>), click the “Profile” link in the menu bar across the top of the page. When the page loads you will see the “Profile” link you clicked on highlighted in red. Click “Launch Mini Course” at the top right of the white part of the page.



This will produce a popup panel and it should be titled “The Kepler Mission.” If this is not the first panel you see, click the leftward arrow to the left of the panel that you got and keep clicking it until you get “The Kepler Mission” panel and there is no leftward arrow next to it.

Carefully read the information in the panel and click the rightward arrow to the right of the panel. Proceed slowly through each panel until you reach the 13th one, “Kepler-90.” This is actually not the end of the mini-course (there are 26 panels total) but if you get through that 13th one on “Kepler-90” that’s probably enough for now.

Note: *Depending upon your security settings, you may not have all 13 popup panels the first time you click through them.* If you find that you get to the “end” and still are not on panel 13 titled “Kepler-90” then try these two tricks. (1) Click on the leftward arrow a couple of times to go back a couple of panels and then click the rightward arrow to see if it now allows you to go past where you were stopped before. If that doesn’t work, (2) click the “Profile” link in the menu bar at the top of the page and then “Launch Mini Course” again. Click through the panels and see how far you get this time; it should allow at least one more panel than the previous iteration. If you still don’t get all the way to “Kepler-90” *try the two tricks again in sequence and keep repeating until it finally allows you all the way to the 13th panel.* (Sorry, but I’ve found no other way around this issue. If you discover one, please [let me know!](#)) You can also get all the way to the last (26th) one called “Congratulations!” by doing this. Panels 14-26 have a lot of information that you’ll recognize from our work with stars in Chapters 11 and forming solar systems in Chapter 5 so you may find it personally gratifying to go to the trouble to read them.

Once you’re finished going through at least the first 13 panels (through “Kepler-90”), click either the yellow-orange “Close” button at the bottom of the box or the “Close x” link at the top right of the box. This will take you to the “Classify” page and you will see a lightcurve displayed with the question “Do you see a transit?”. ***DO NOT proceed until you finish the rest of the tutorial (keep reading through part III).***

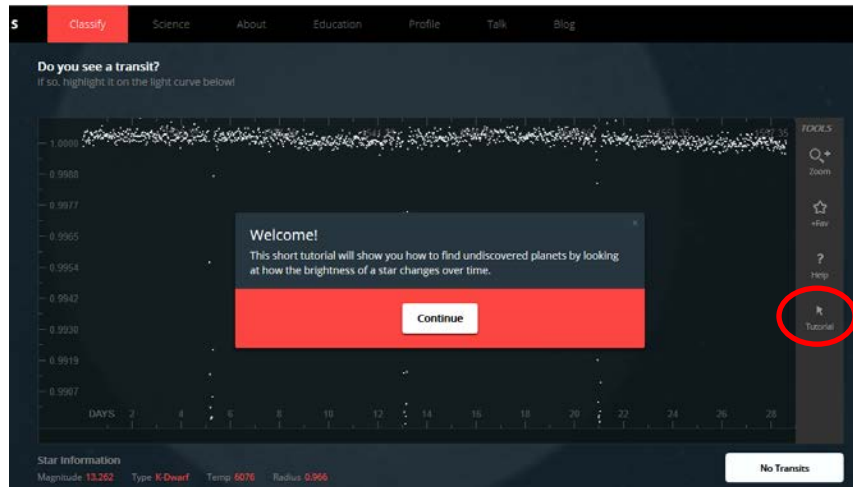
TUTORIAL PART III: HOW TO CLASSIFY

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Once you are logged in to the main Planet Hunters page (<http://planethunters.org>), click the “Classify” link in the menu bar across the top of the page. When the page loads you will see the “Classify” link you clicked on highlighted in red and a lightcurve will be displayed with the question “Do you see a transit?”. You may or may not see the “Welcome!” box in the middle of the lightcurve. If you do not see this “Welcome!” popup, click “Tutorial” in the vertical menu bar to the right of the light curve.



Read the info in the box carefully then click the “Continue” button. Continuing to do so will step you through a series of tutorial boxes, each with a little more information about what to look for. If you make a mistake and close one of the boxes (by clicking on the “x” in the top right of the box) simply click the “Tutorial” link in the vertical menu bar again.

As you step through the tutorial boxes you will get to a point where it will ask you to try marking transits on the sample light curve; follow the instructions and do what it says. When you get to the box on zooming, click on the “Zoom” link several times. You will see that you are typically able to zoom in twice before the toggle changes back to zoom *out* mode (it will show a minus sign rather than a plus sign) where you can view the original full scale.

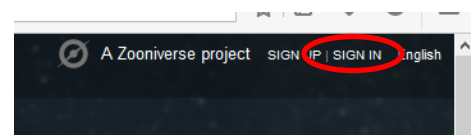
Just keep reading, following the instructions, and clicking “Continue” on the tutorial boxes until you are all the way through. Click “Finished” below the lightcurve.

You probably also want to proceed to the Spotter’s Guide by clicking “Help” in the vertical menu at the right of the light curve. This is a good visual guide to the kinds of things you’ll see. There is nothing interactive to complete here; it’s simply a visual reference that is always available to you.

When you are finished reviewing the Spotter’s Guide, simply scroll back up to the top of the page where you will find the light curve you were last on. From there you can proceed with your classifications as instructed. Remember that if you want credit for them in your tally, you must be logged in.

ONCE YOU’VE REVIEWED THE TUTORIAL AND ARE READY TO START CLASSIFYING

From the main Planet Hunters page (<http://planethunters.org>) click “SIGN IN” at the top right



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of the page and log in. In the “Username” box you must enter either your username (**not** your displayed name) or the email address that you used to register.

Once you are successfully signed in you will see your displayed name at the top right of the page where you previously clicked to sign in. It will say “SIGN OUT” underneath your displayed name. **VERY IMPORTANT!** In order to earn credit for this assignment, your displayed name must be the same as your SURF ID. To change your displayed name, follow the directions that go with the appropriate [link above](#).

Once you are logged in to the main Planet Hunters page (<http://planethunters.org>), click either the “Classify” link in the menu bar across the top of the page or the yellow-orange “Start Classifying” button in the middle of the page. When the page loads you will see the “Classify” menu link highlighted in red and will have a lightcurve displayed. If you get the “Welcome!” tutorial popup box and have already reviewed the tutorial, simply close it by clicking the “x” at the top right of the popup box.

If you identify transits, mark them by clicking and dragging over them (creates the blue frame you remember from the tutorial). Click “Finished” when done there and “Next Subject” when you are done on the next page (you don’t have to enter anything on that page if you don’t want to). If you do not identify any transits just click “No Transits” and “Next Subject” on the next page. You must click “Next Subject” in order to register the classification.

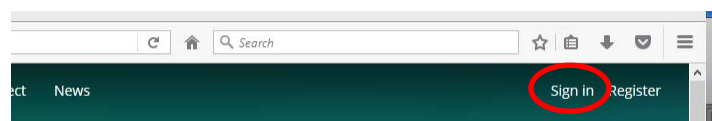
Each fully completed classification is recorded in your account with the image of the light curve and the total is updated every time you complete another one. You can see all of them by clicking on “Profile.”

Remember, there may not be an obvious “right” answer to the classification. Many of the light curves you’ll be asked to deal with are rather “noisy” and determining patterns might be challenging, if possible at all. Astronomers need help and, much as you have learned in class, often times the best way to solve the problem is to discuss it with others and reach a consensus. This is what Planet Hunters allows: many people classifying the same light curves and then the astronomers go back and look at what everyone thought, compare that with the science and their own interpretations, and the best choices are agreed upon.

ONCE YOU’VE REACHED AT LEAST 20 CLASSIFICATIONS

Your assignment must be submitted electronically via your course management system.

Point your browser to the main Zooniverse page (<http://zooniverse.org>) and click the “Sign in” button at the top right of the page. When you click this, you will get a popup box to sign in.



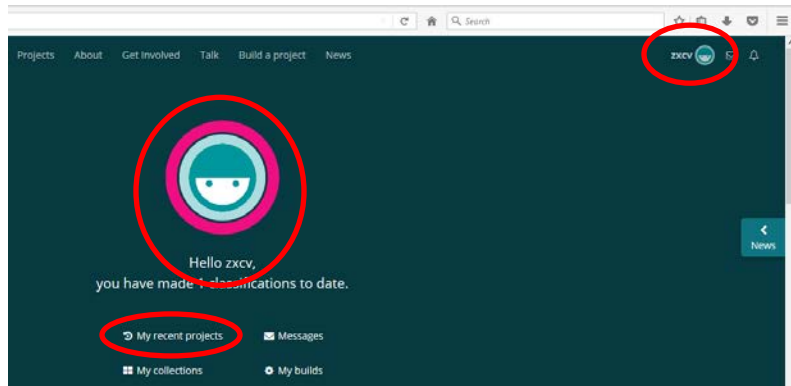
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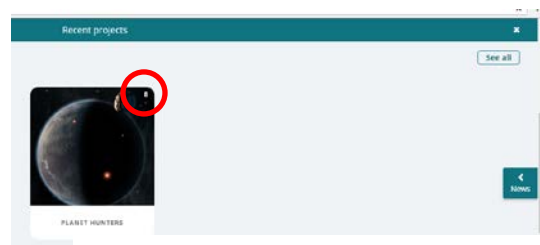
VERY IMPORTANT! In order to earn credit for this assignment, your displayed name must be the same as your SURF ID. To change your displayed name, follow the directions that go with the appropriate [link above](#).



Step #1:

Click “My recent projects” from the list and you will see a blue bar across the top labeled “Recent Projects” and the icons of your projects will show with the number of classifications in their upper right corners.

You will see the Planet Hunters icon and the number in the top right corner of the icon must be at least 20.



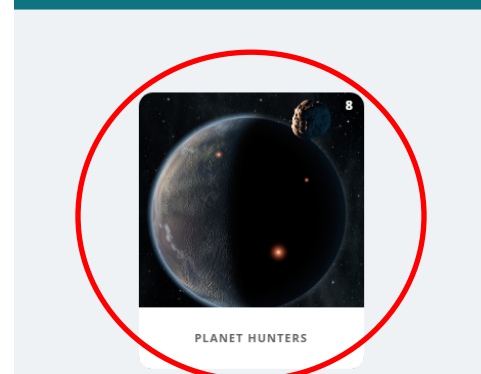
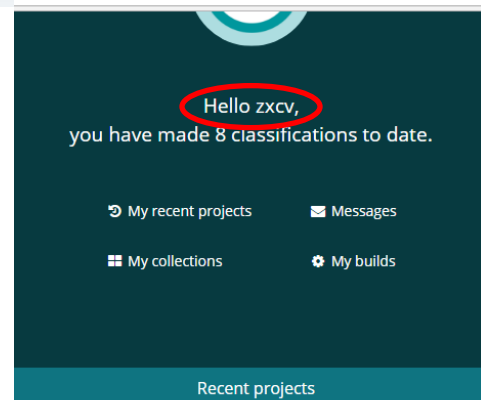
Step #2:

Scroll up the page until your displayed name shows along with the “Recent projects” icons and classification tallies.

Both your displayed name and the project icon with at least 20 classifications tallied must show on the page.

Take a screenshot of this display. If you don't know how to take a screenshot or just really want to make sure you get it right, go [here](http://www.take-a-screenshot.org) (www.take-a-screenshot.org) and read carefully for your operating system.

Save the image to your computer. Make sure it is in an acceptable format (.jpg, .jpeg, .gif, .tiff, .tif, .bmp, or .png). **View the image to check that it shows the required information and that it is readable before proceeding.**



Step #3:

Log in to your course management system get into our class site. Navigate to the assignment link for Planet Hunters. Click the button to attach a file and upload a document. When the window pops up, navigate to wherever you saved your image file and select it as the file to be uploaded. Click the “Submit” button at the bottom of the assignment page. A successful submission should allow you to see the file (or a link to it) displayed on the page.

Don't forget to log out of Planet Hunters if you haven't already.