

How to restart cs301 game application written by Fung Yang.

(0) Optional, do this only if needed.

Shut down the PC, the turn it back on. (do not use restart)

Then login using the following username and password:

. \student

P@ssw0rd

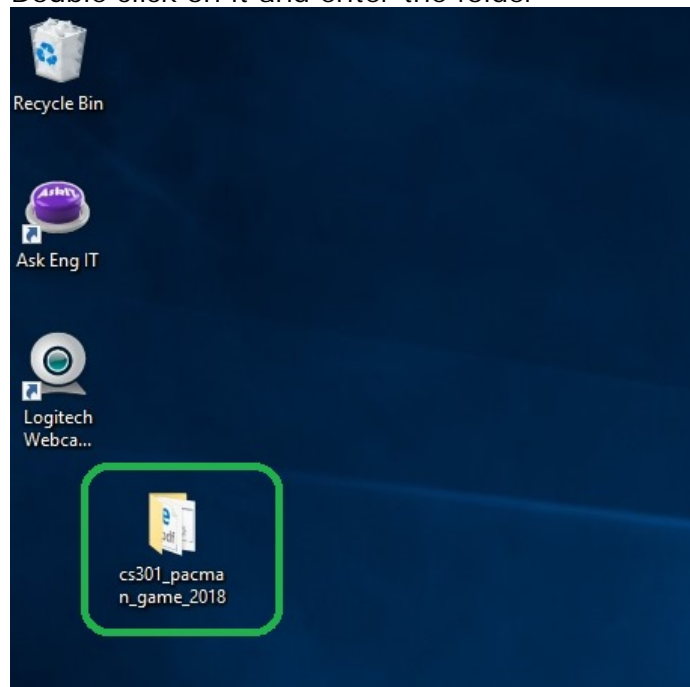
then,

Go to the yellow folder

named "**cs301_pacman_game_2018**"

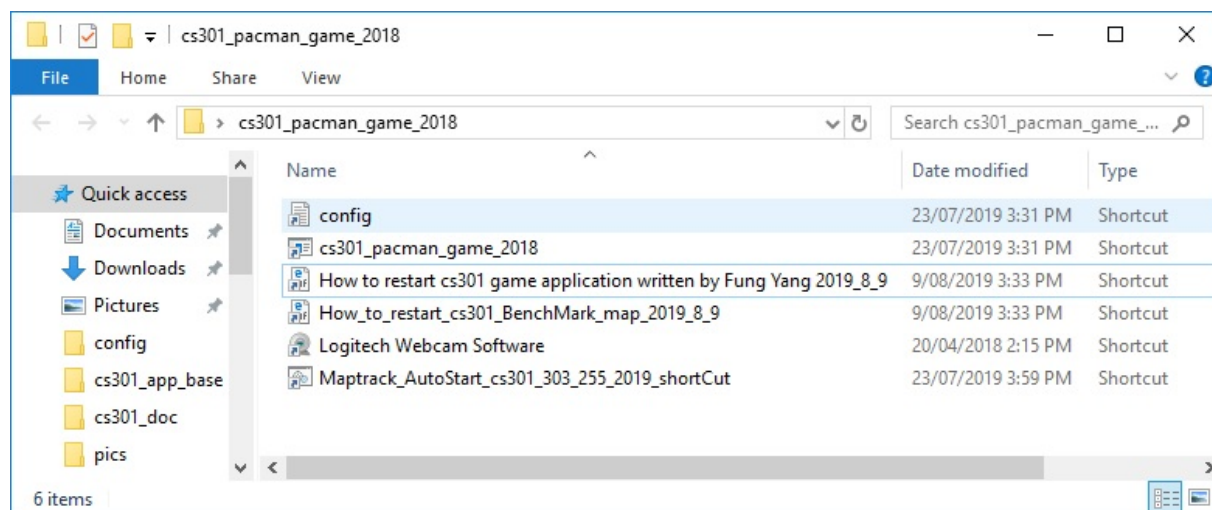
on windows desktop.

Double click on it and enter the folder



There are six shortcuts in it, they are.

- (a) camera setting (with a webcam icon),
- (b) cs301_pacman_game_2018, for running the projector/webcam tracking cs301 game
- (c) Config file
- (d) PDF instruction on how to use the cs301 pacman system
- (e) One shortcut for running benchmark map system
- (f) PDF instruction on how to restart the benchmark map system.

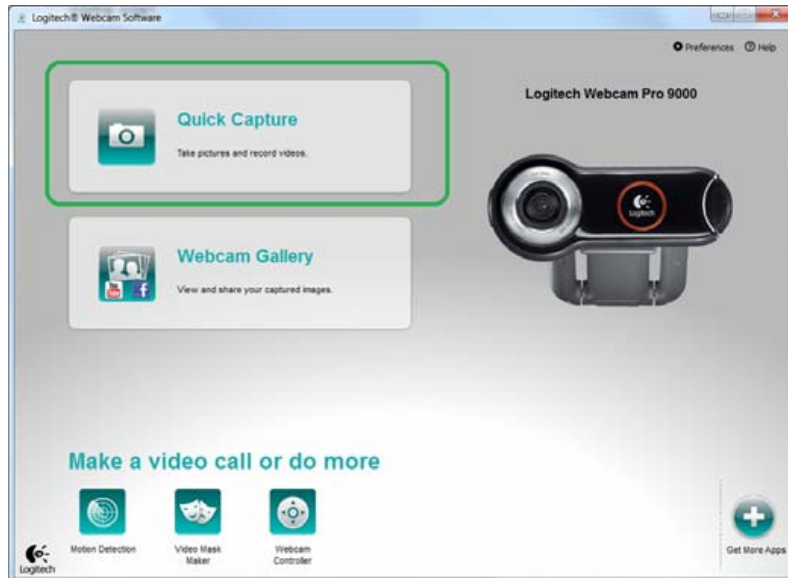


(1) Camera setting

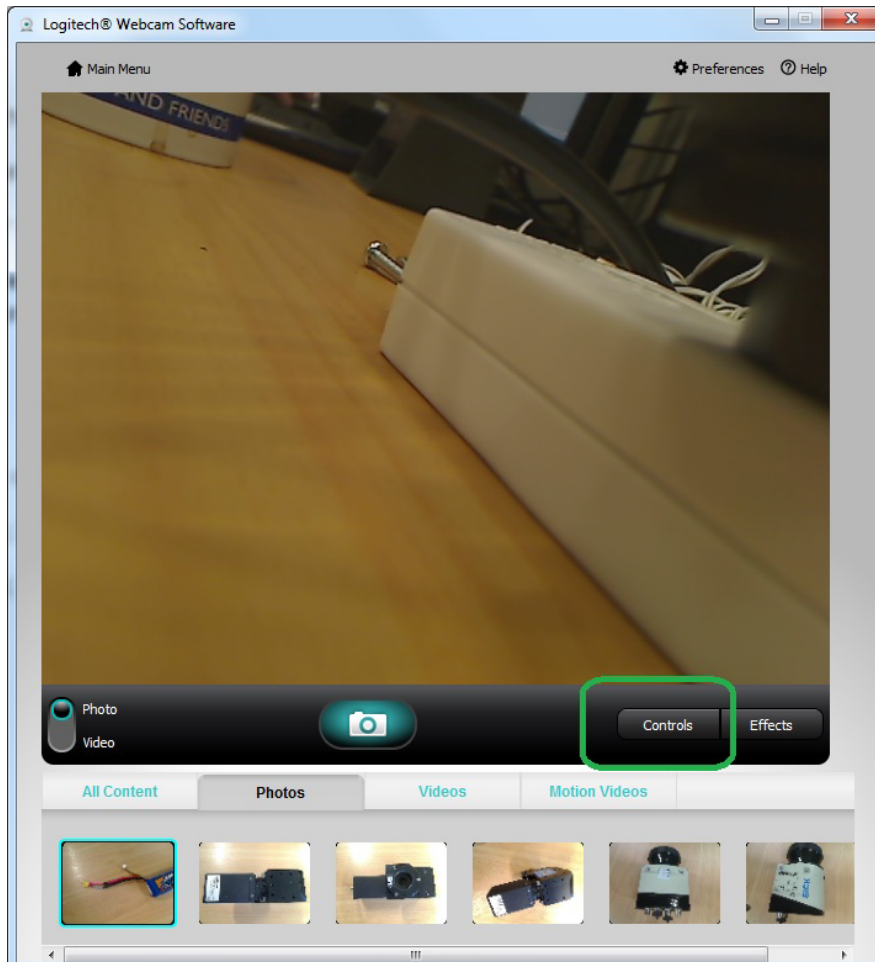
**Note: camera setting only need to be done once.
Need to do it again only if you restart the PC.**

Double click on the webcam setting shortcut, follow green round rect on the pics.

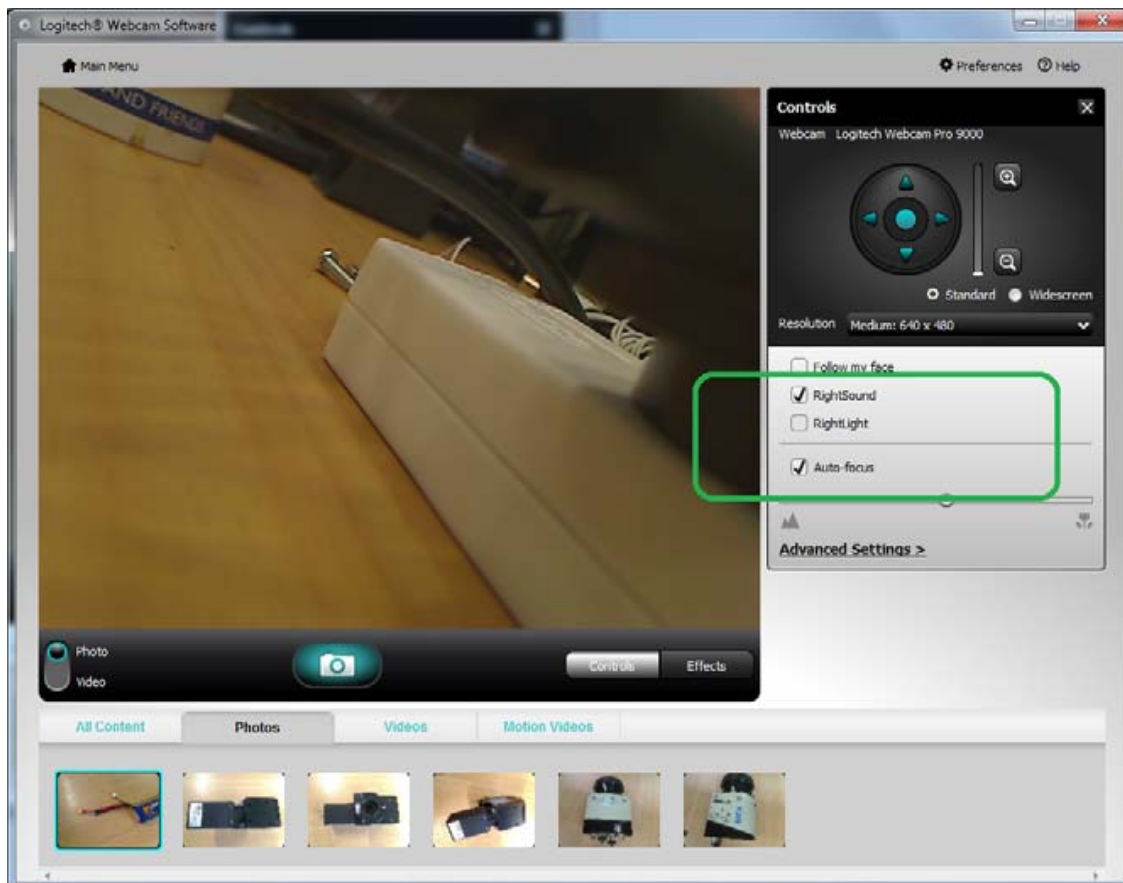
(a)click [Quick Capture]



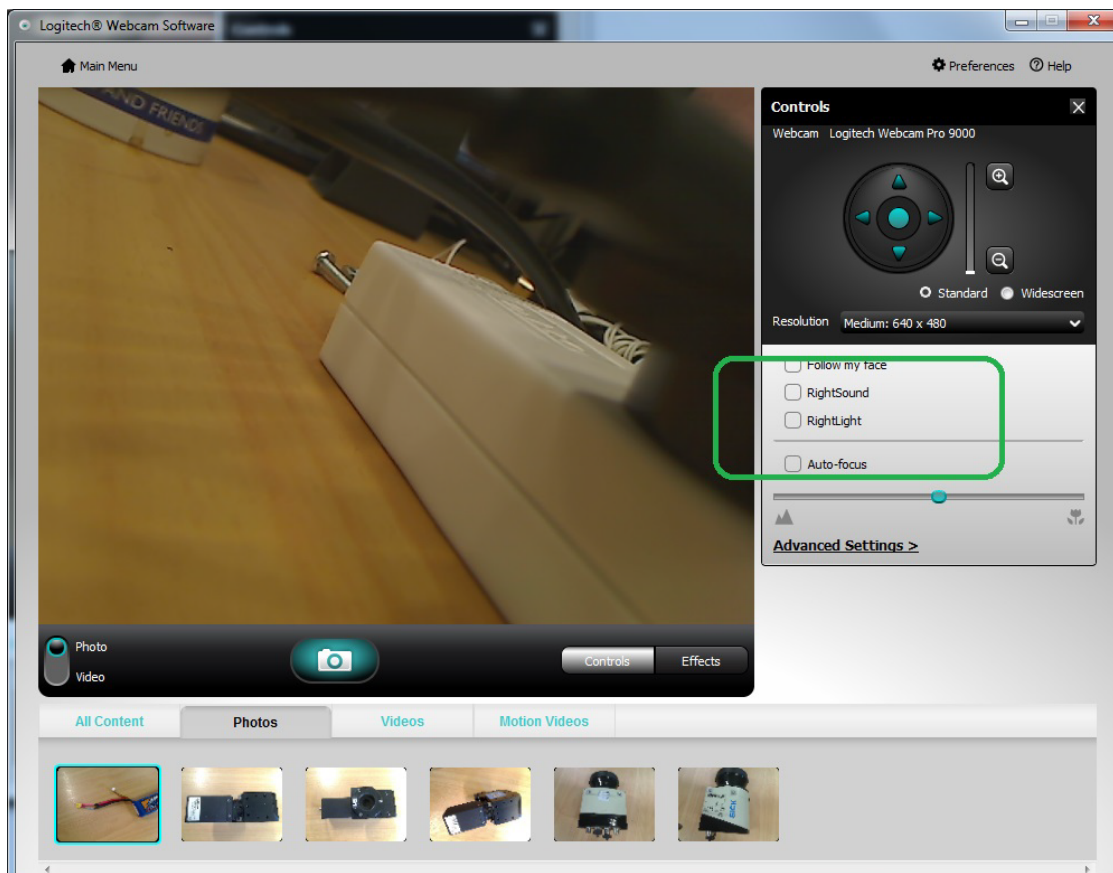
(b)click [controls] until you see menu like in the picture attached.



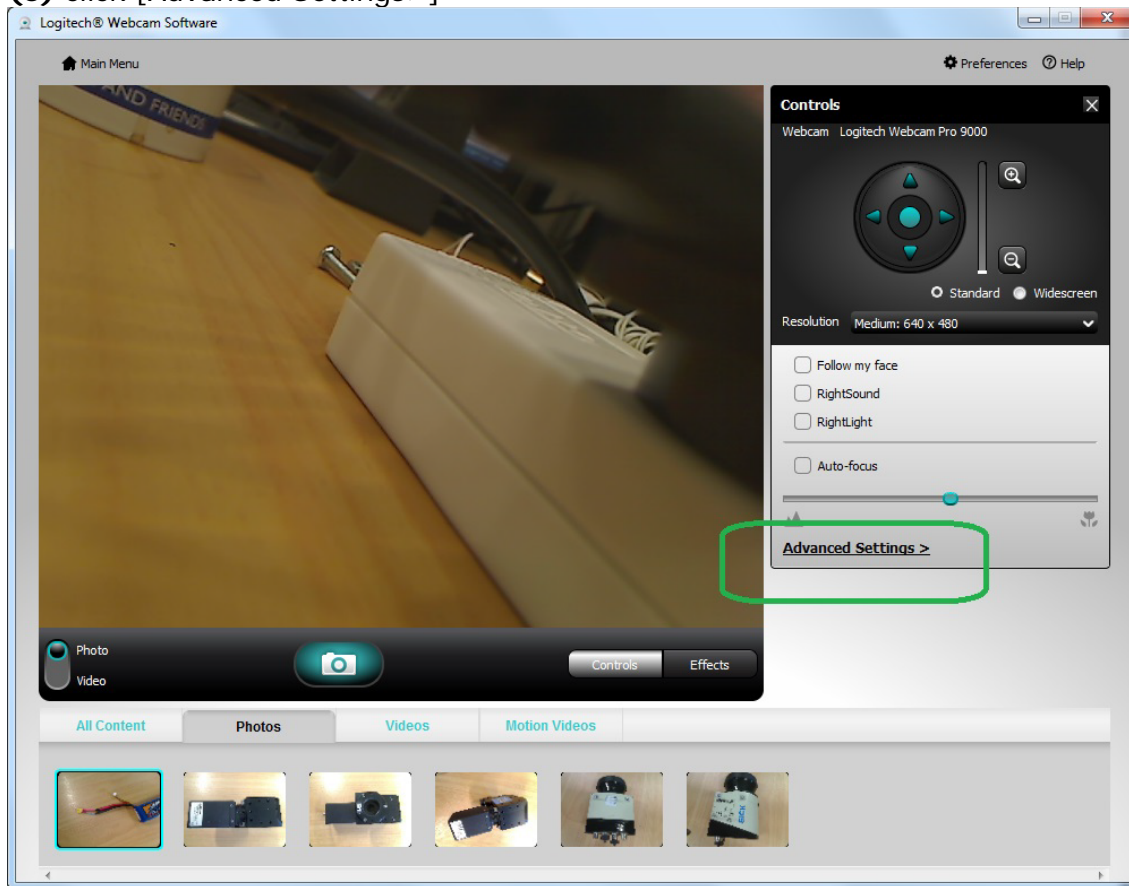
(c) wait until you see the menu like in picture attached



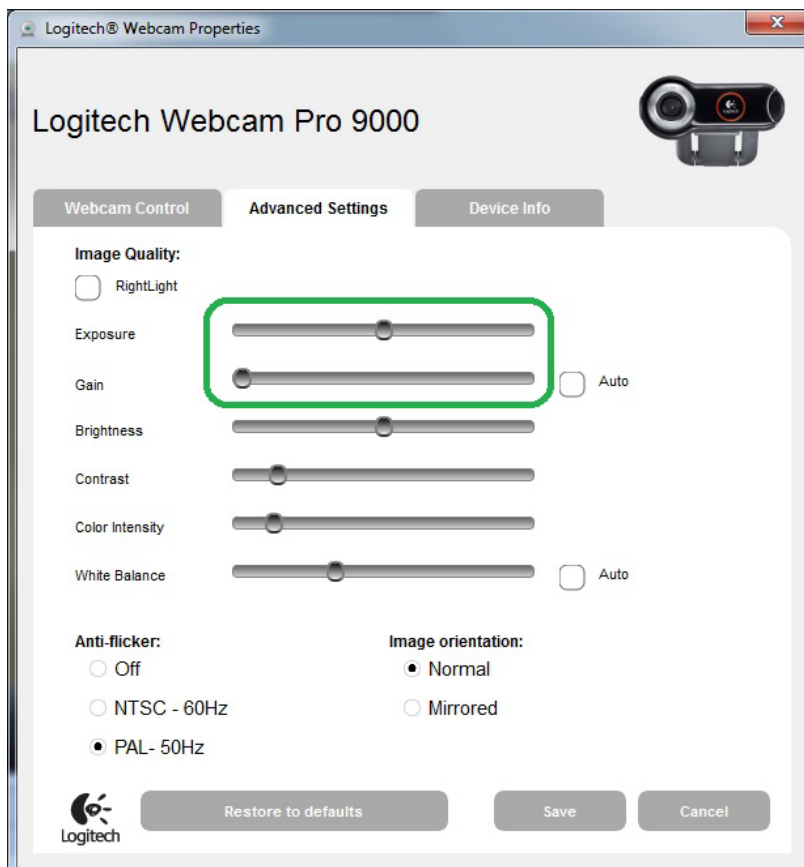
(d) disable all auto settings, **untick [RightSound], [RightLight], [Auto-focus]**.



(e) click [Advanced Settings>]

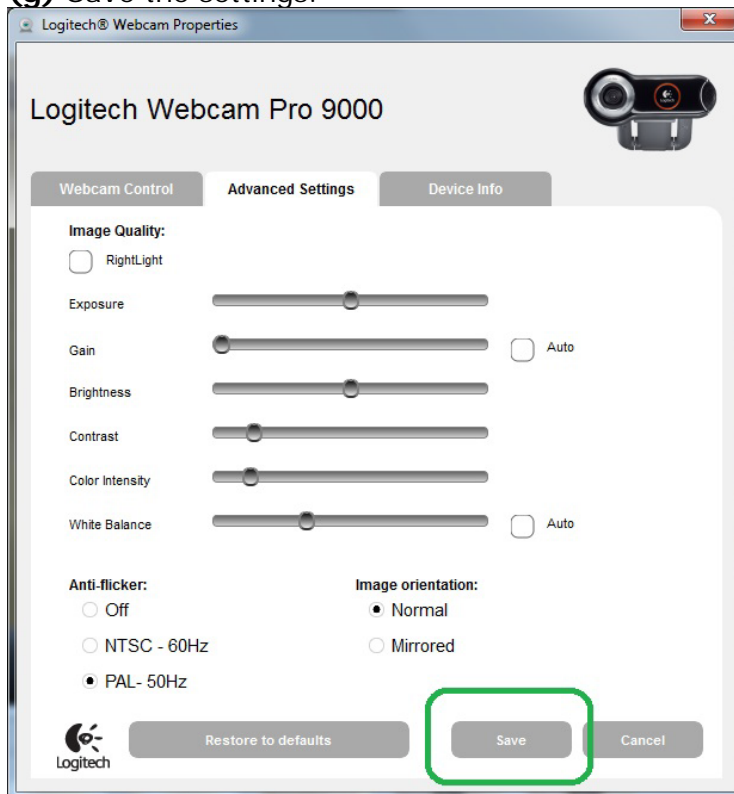


(f) Only need to adjust two settings:
Exposure: scroll bar to middle position.

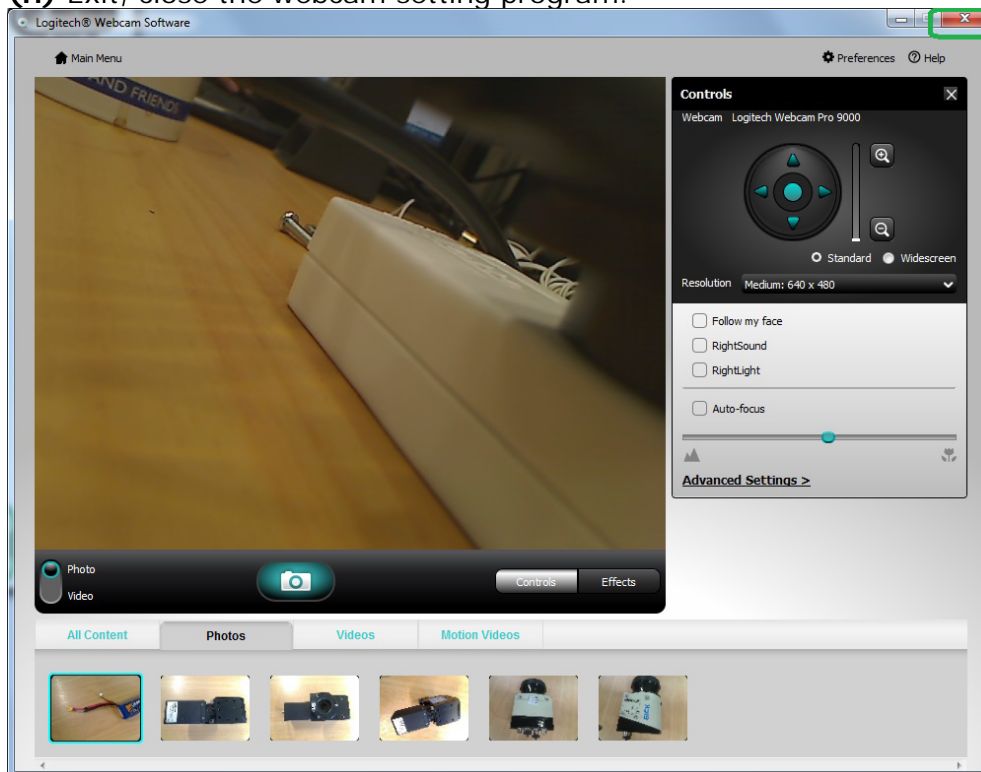


Gain: scroll bar to left most position.

(g) Save the settings:



(h) Exit, close the webcam setting program.



Now camera setting is completed.

(2)Change the configuration file of the pacman game program for different levels when needed.

For this step,

Please refer to the picture in the appendix part of this document.

Let's start the cs301_pacman_game_2018:

(3) start the cs301 pacman game 2018

(a)

Double click on the shortcut in "cs301_pacman_game_2018" folder on the desktop.

(the shortcut with name "cs301_pacman_game_2018"),

Then,

one console window and three other graphics windows will come up on the LCD screen.

And the projector will project:

- A circle at upper left corner (close to x, y = 0,0 corner).

- And a sentence "Please put your robot in the circle".

(b)

Put your robot in the circle as told and turn on the three position marking

LEDs on your robot.

(c)

On the win10 task bar at button of the screen, click the item "Original"

to enable, make focus for the window named "Original" so it is at foreground.

(d)

Press any key on the keyboard (e.g. space bar),

and wait between 2~5 secs for the camera to calibrate and capture your robot.

Then the program should work for you now.

(e)

You will be able to see many information on the window named "Original".

When all food particles are eaten and when the robot goes outside the projected

area, the food particles and ghosts on the projected maze will be automatically

regenerated in a random fashion.

Important Note:

The pacman program can only recognize 3 light spots as robot in the projected area. It will not work when there are more or less than 3 light spots in the projected area. This means:

(a)

If you want the program to track your robot,

there must be only one robot with its 3 position marking LEDs turned on,

other robots in the projected area should have their LEDs turned off.

(b)

Please avoid placing shiny objects (like your watch and metallic objects)

under the projected area. The reflections from these shiny objects will

interfere the camera robot capture tracking function, making it not working.

Appendix: (important)

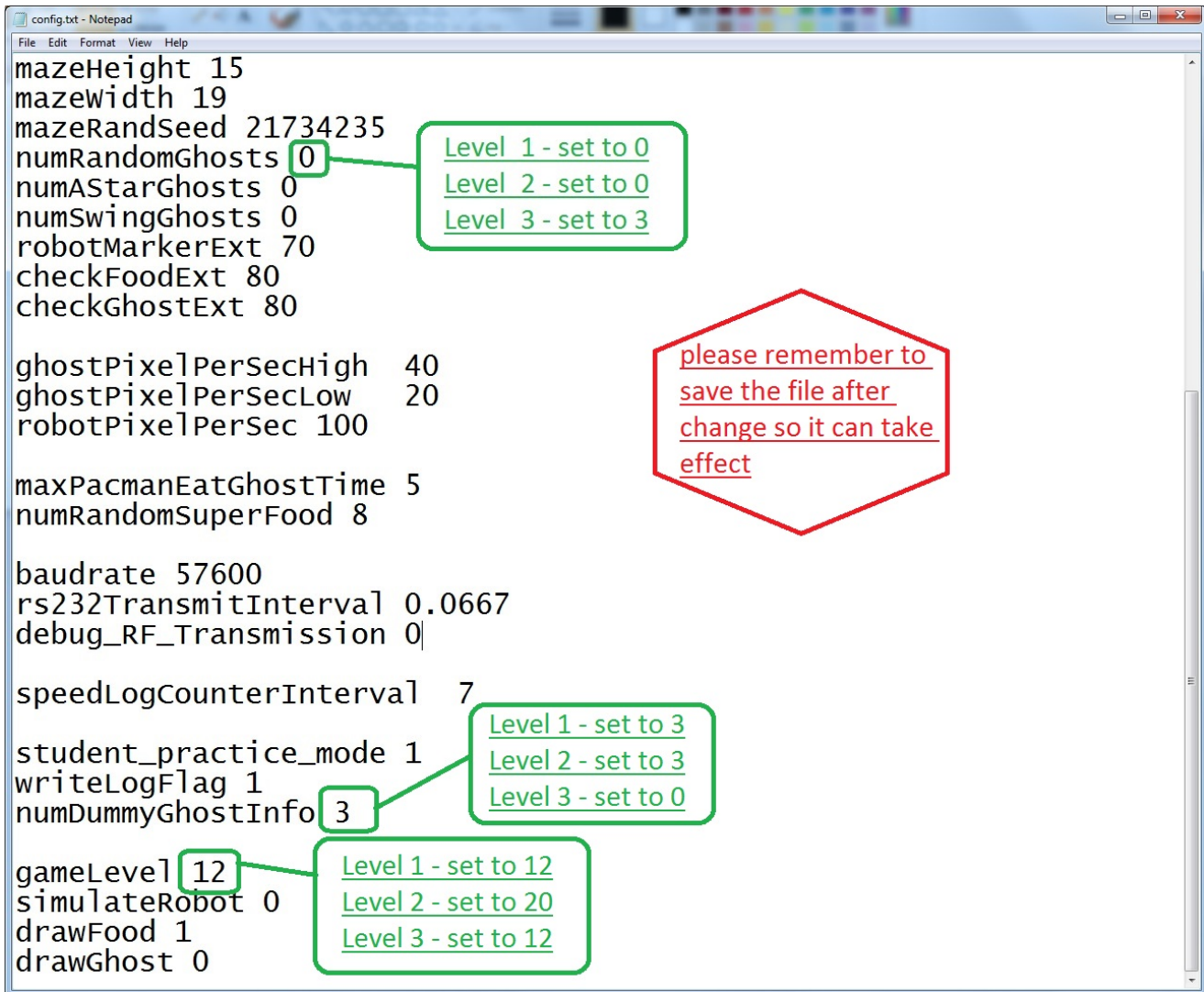
Setting up config file for the mode of program operation you like.

(1)

Double click on the shortcut "config" in folder
"cs301_pacman_game_2018" on the desktop

(2)

Edit it as shown in the picture below for the mode you like to practice on.



***if you do not like to show food parcel or ghost,**

Change the last two variables to zero in the "config.txt" as follow:

drawFood 0

drawGhost 0

****if you like to show food parcel or ghost,**

Change the last two variables to zero in the "config.txt" as follow:

drawFood 1

drawGhost 1

then save the config file, restart the game application to take effect.

End of this documentation.