AppRunner	
 Starts the program Creates a thread for the GUI objects (actions, view, etc) Creates a GUI actions Object Makes the GUI visible 	nonenoneGUIobjectsGUIfrontEnd

GUlactions	
Set the Pattern	GUlobject
Load a pattern (as text)	• none
Save a pattern (as text)	• none
Pick a color from the GUI	GUlfrontEnd
Demo the LED strip (x amount of boxes on the screen using hex color)	GuifrontEnd

GUIobjects	GUIobject
extends the GUI object	GUlobject

GUIobject		GUIobjects
 sets patterns returns properties from the PixelControl when prompted Creates a thread, and puts a PixelControl object within it 	PixelControlPixelControlnone(?)	

1 of 3 2017-01-10 10:58 AM

PixelControl		GUlobject
 Creates a Pixel array decodes patterns and sets individual pixels certain colors returns properties from Pixels when prompted (strip length, sent serial comms, etc) get Pixel values Returns whether the LED strip is set up as a matrix (a panel rather than a strip) Creates a SerialComms thread and object send commands(Strings) to the SerialComms object 	 Pixel Pixel Pixel Pixel none SerialComms SerialComms 	

Pixel	
Set a color on an individual LED	• RGB
• set an average Color on a individual LED	• RGB
set a smart average on a individual LED	• RGB
• get the x and y position of this LED	• RGB

Abstract	RGB	Pixel
Set Red		• Pixel
Set Green		• Pixel
Set Blue		• Pixel
Get Red		• none
Get Green		• none
Get Blue		• none

2 of 3 2017-01-10 10:58 AM

Abstract SerialComms	
 Return if it can send another command yet Return any Strings sent from the Arduino Get a command and send it to the buffer Create an array of Strings as a command buffer 	nonenonePixelControlnone

3 of 3 2017-01-10 10:58 AM