def are\_holes(big\_list, flag1, flag2, rad\_cut):

"""

Check for a gap of over some length in the center of the galaxy, plus at least 3 flags within

"""

#Getting smallest y value

metal\_radii = big\_list[1]

smallest\_y = min(metal\_radii)

#Counting flags within smallest\_y

count\_flags = 0

for radius in flag1[1]:

if radius <= smallest\_y:

count\_flags += 1

for radius in flag2[1]:

if radius <= smallest\_y:

count\_flags += 1

#If there are no metal spaxids within and there are some number of flag spaxids within

if .2 <= smallest\_y < .3 and count\_flags >= 6:

return True

elif .3 <= smallest\_y < .45 and count\_flags >= 8:

return True

elif .45 <= smallest\_y and count\_flags >= 10:

return True

else:

return False