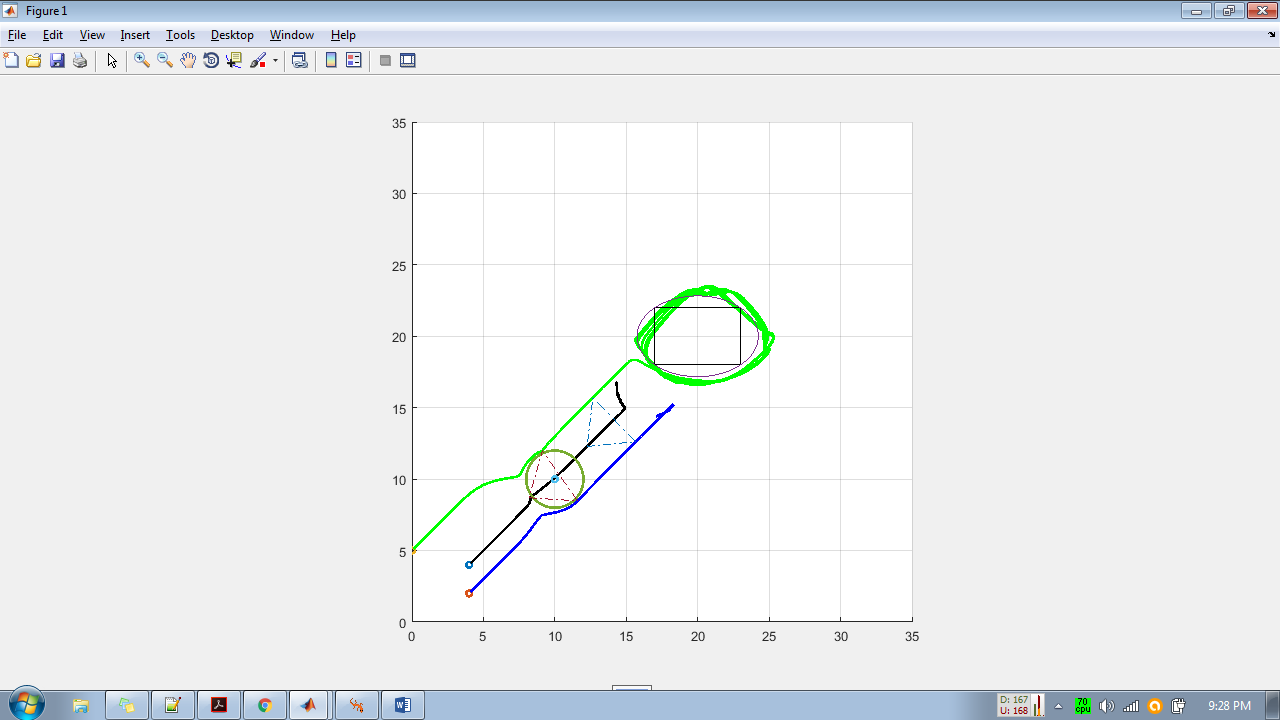
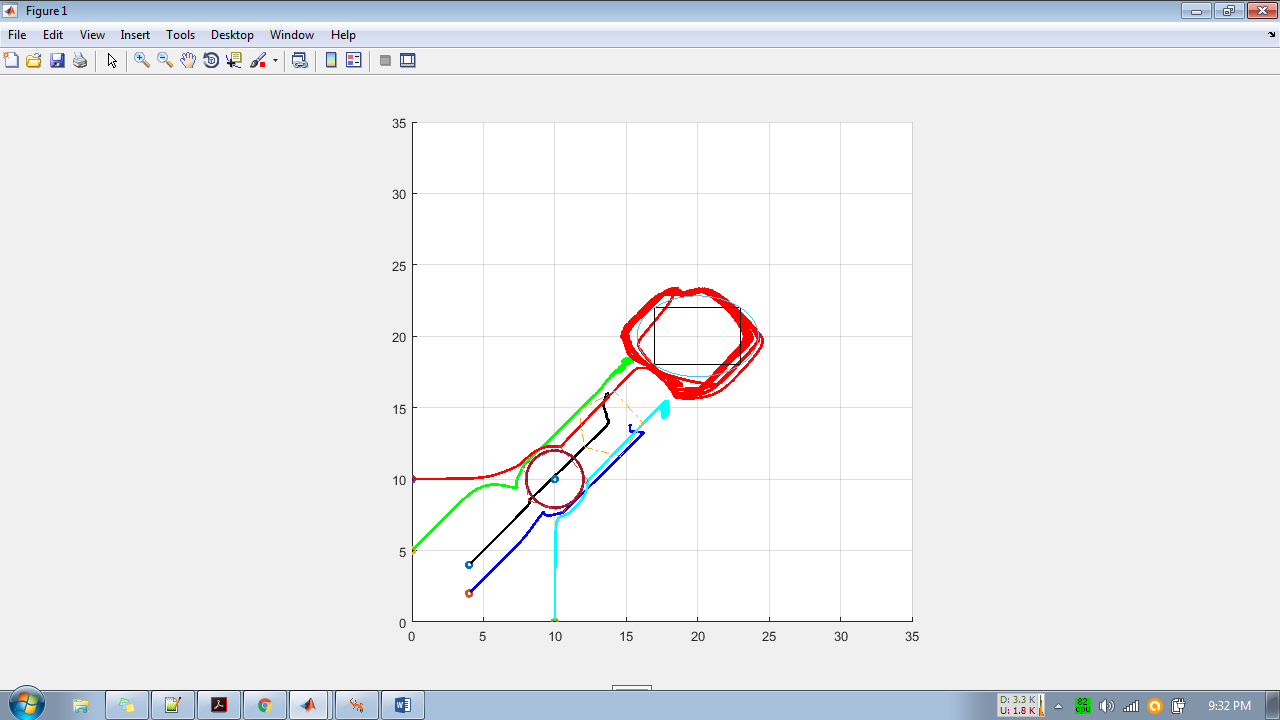


Virtual is waiting for robots to make formation to move forward, robots cannot form, cause of obstacle

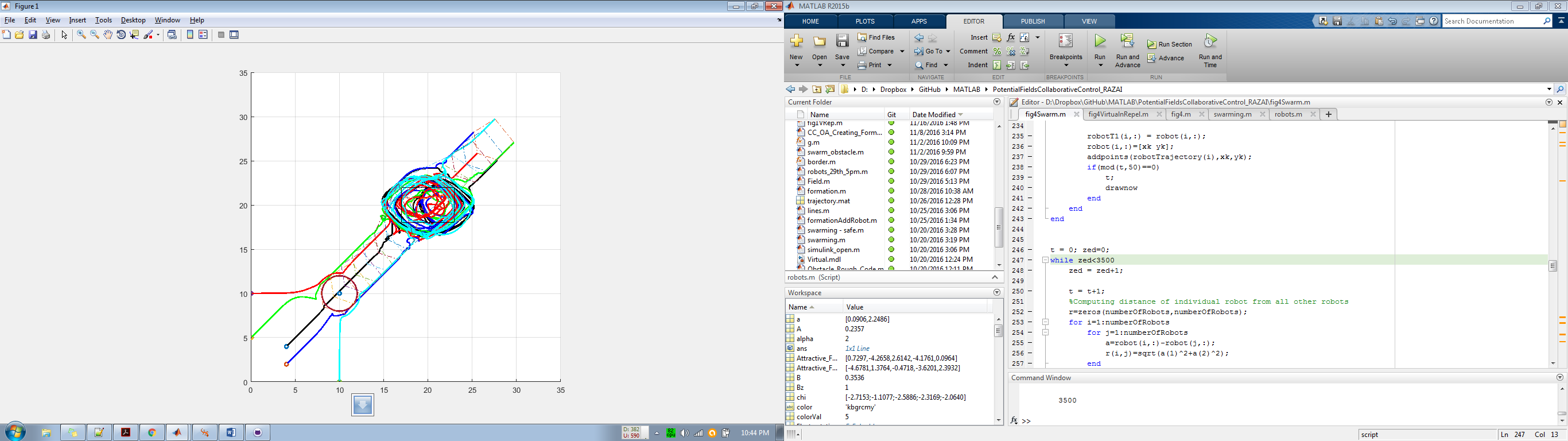
FIXED force on virtual, 8,8



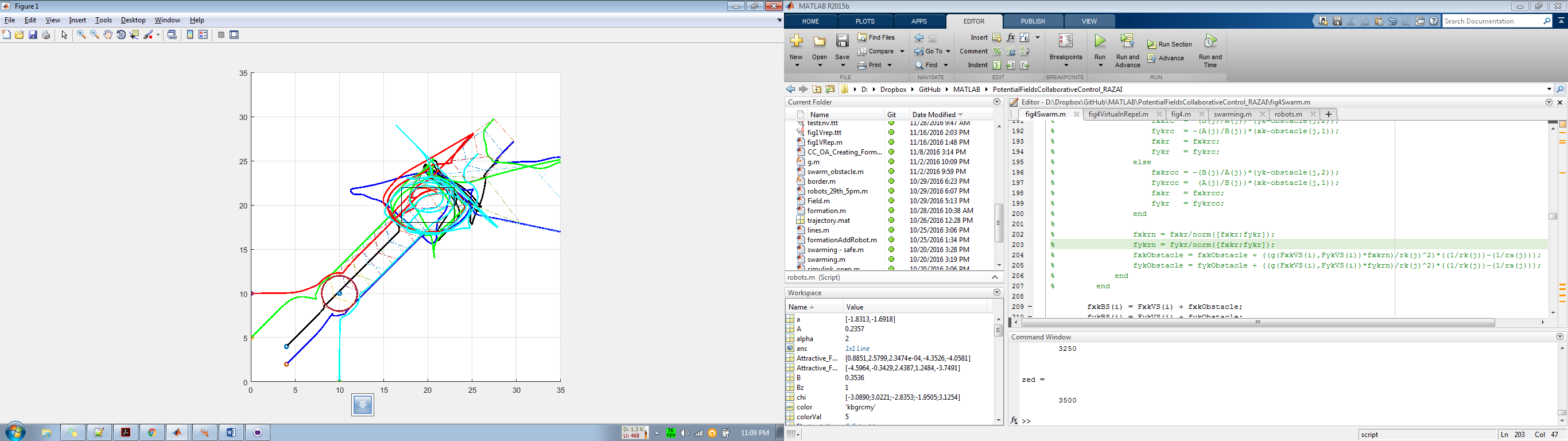
Same for 3 bots.



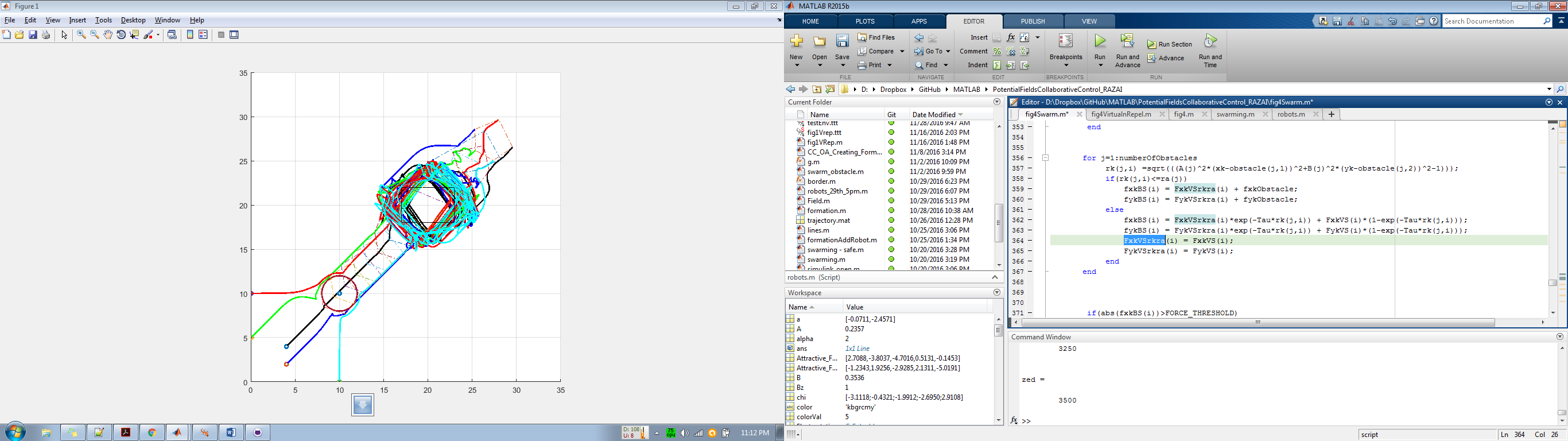
Same for 5 Bots



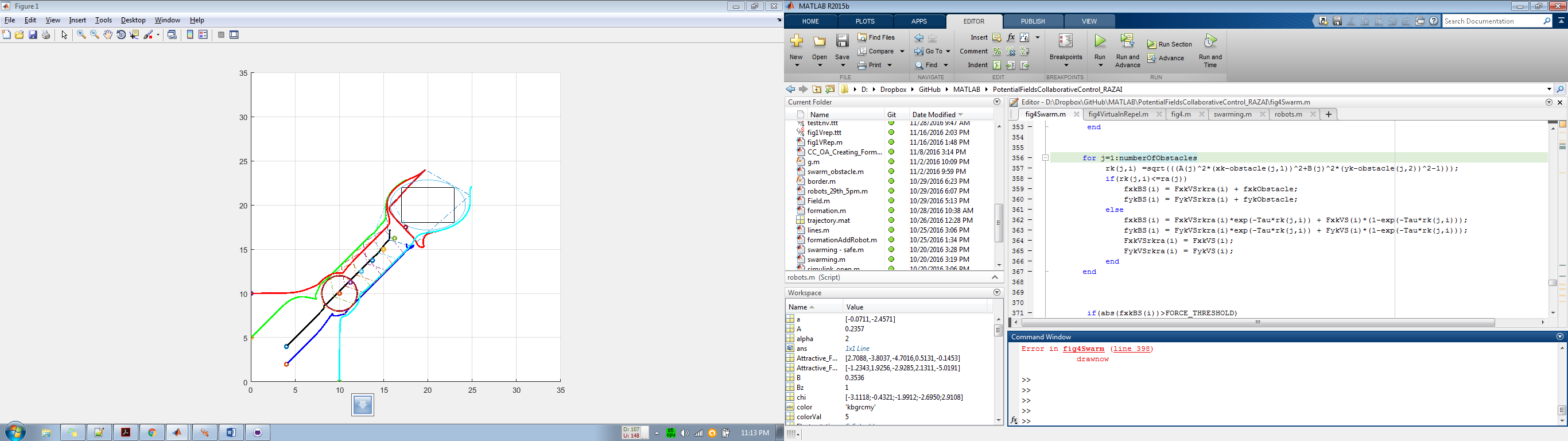
Made the virtual bot MOVE without stopping, only waits for SWARM formation at start, virtual bot force is also now 1,1



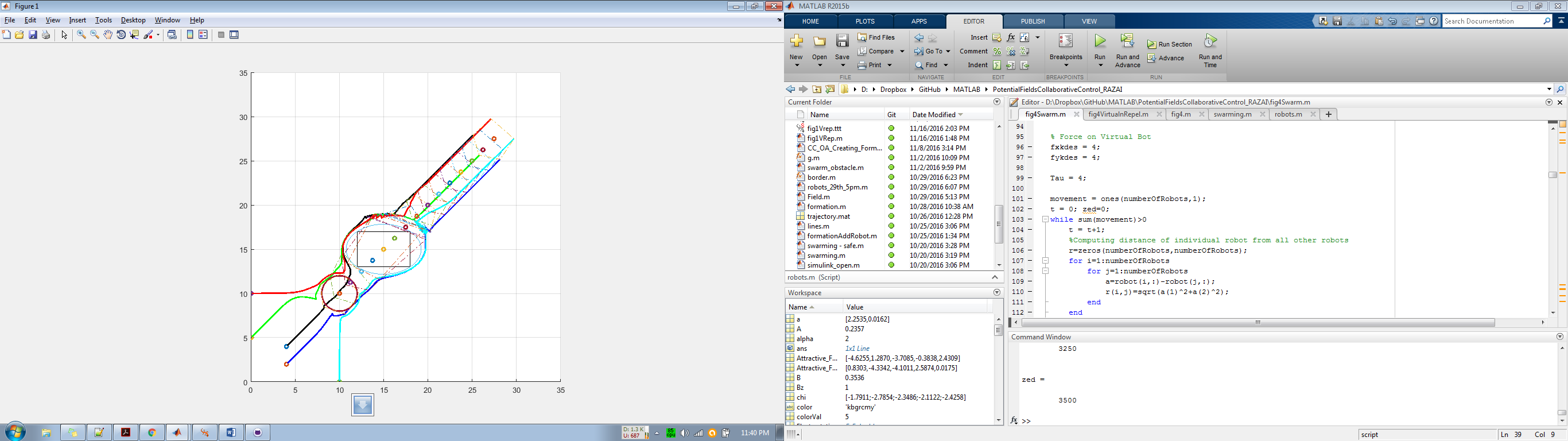
Something happened – some robots tried to avoid and some ignored the obstacle and then $hit happened.



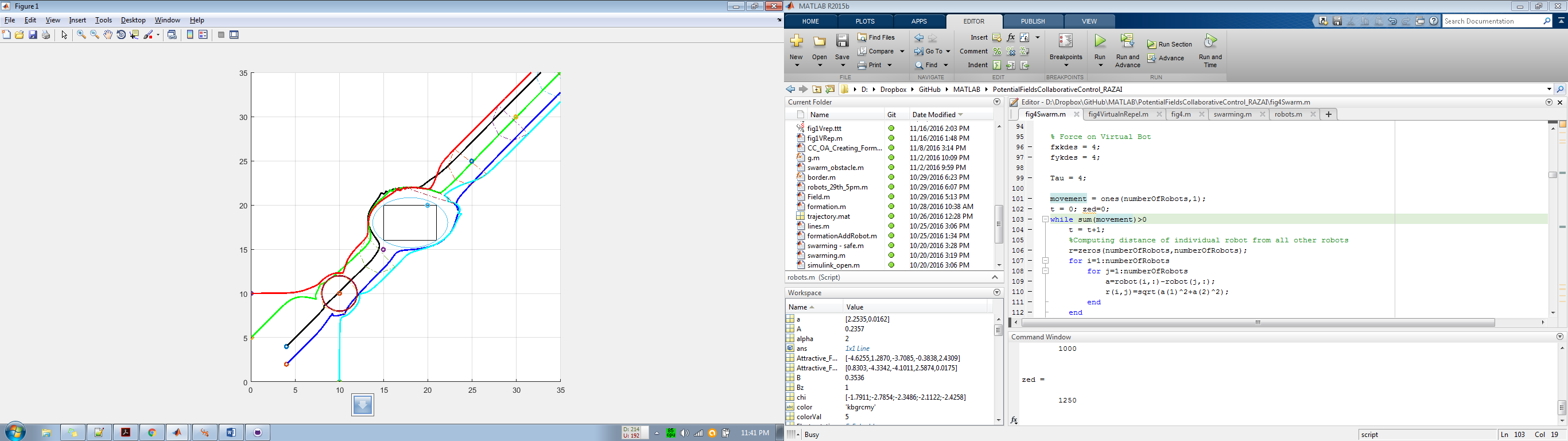
Seemed good enough until the robots moved AFTER the obstacle. – see next page.



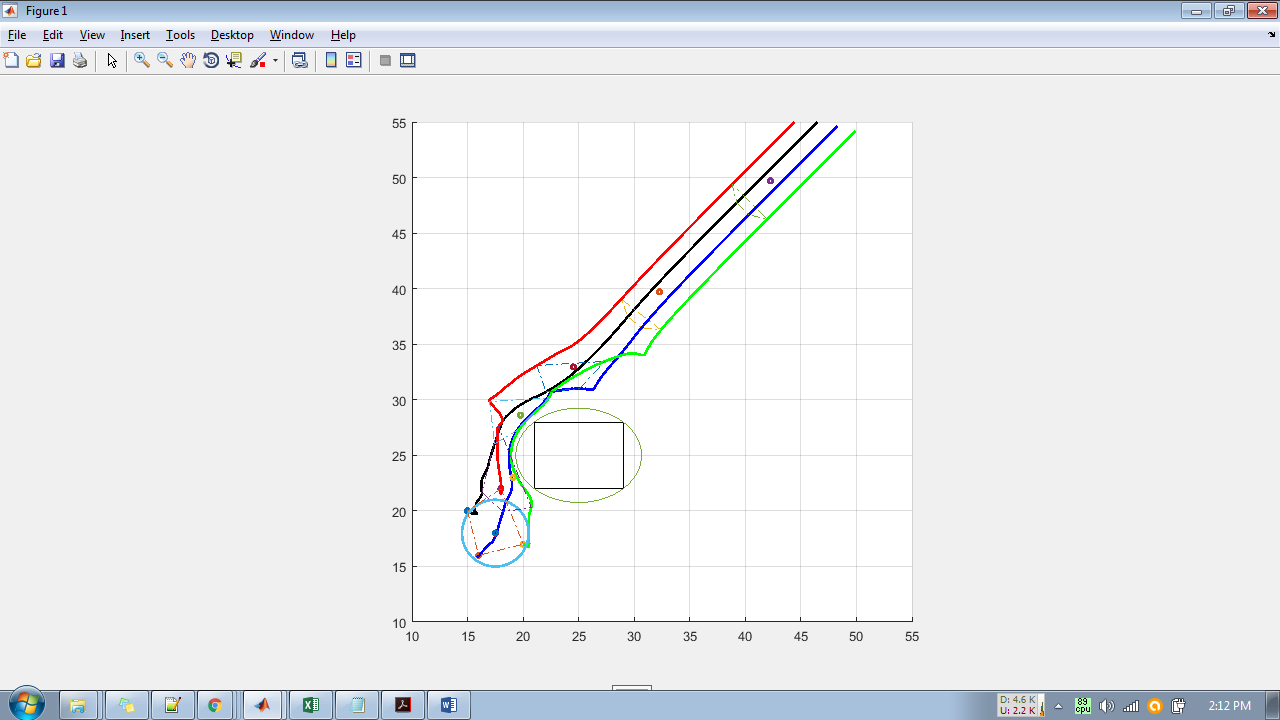
See HOW Red moves – this is concerning FxkVSrkra and FykVSrkra



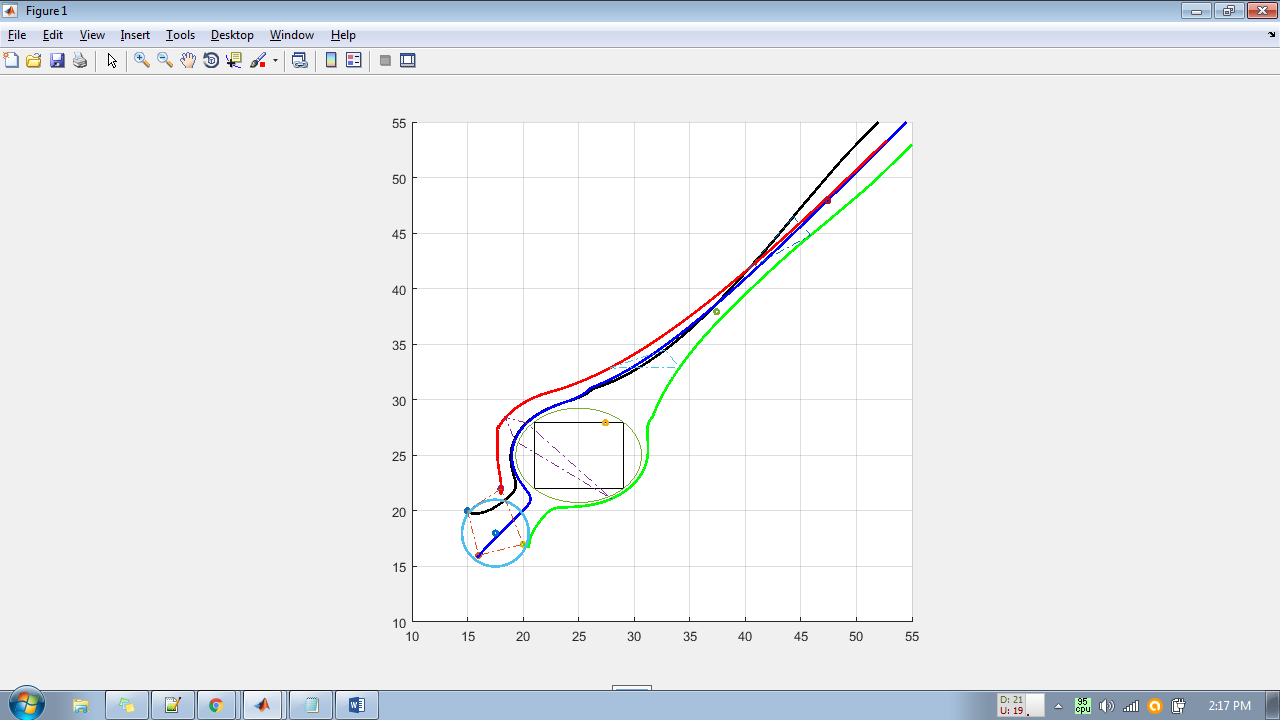
Virtual TOO Slow, but the others NOT colliding and then FORMING later on.



Virtual is FAST, swarm becomes at the back – formation maintained – obstacle cleared much better – need to add feedback to virtual force.

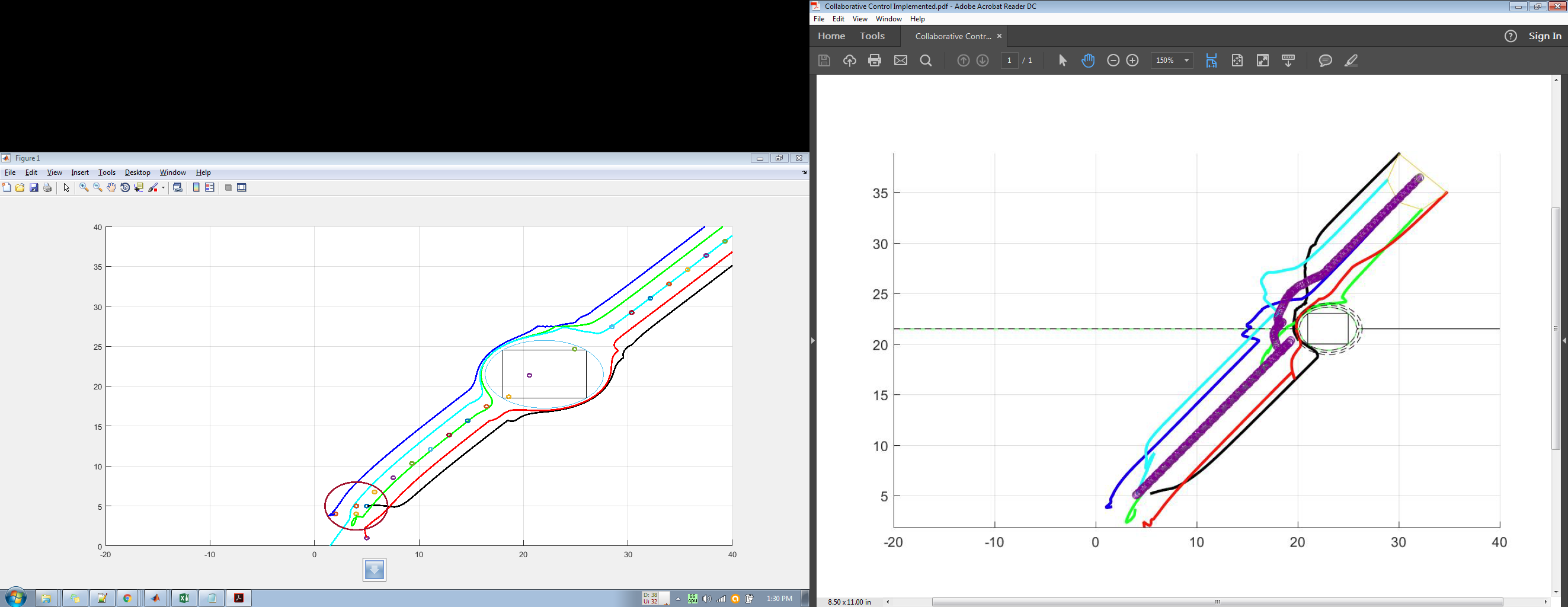


Feedback to Virtual Force added, Constrains added properly, in a a SCALLING manner.

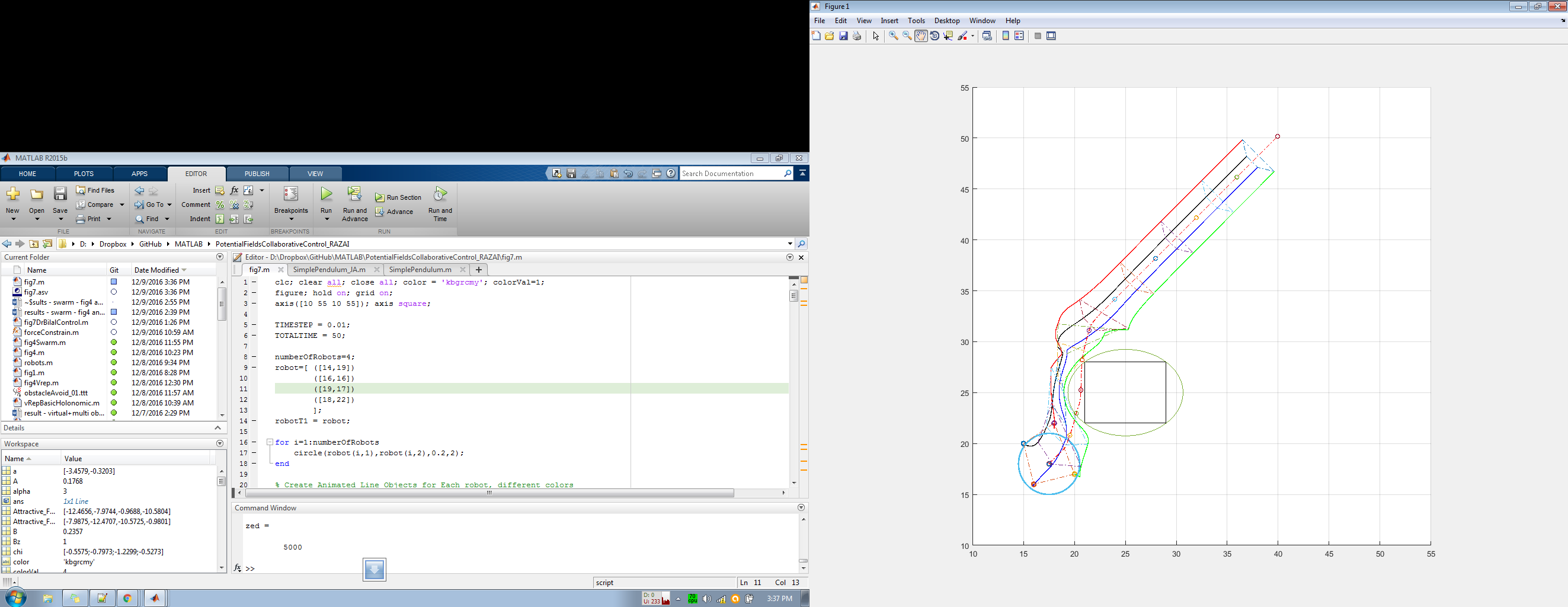


No Feedback on Virtual Force, kp=0

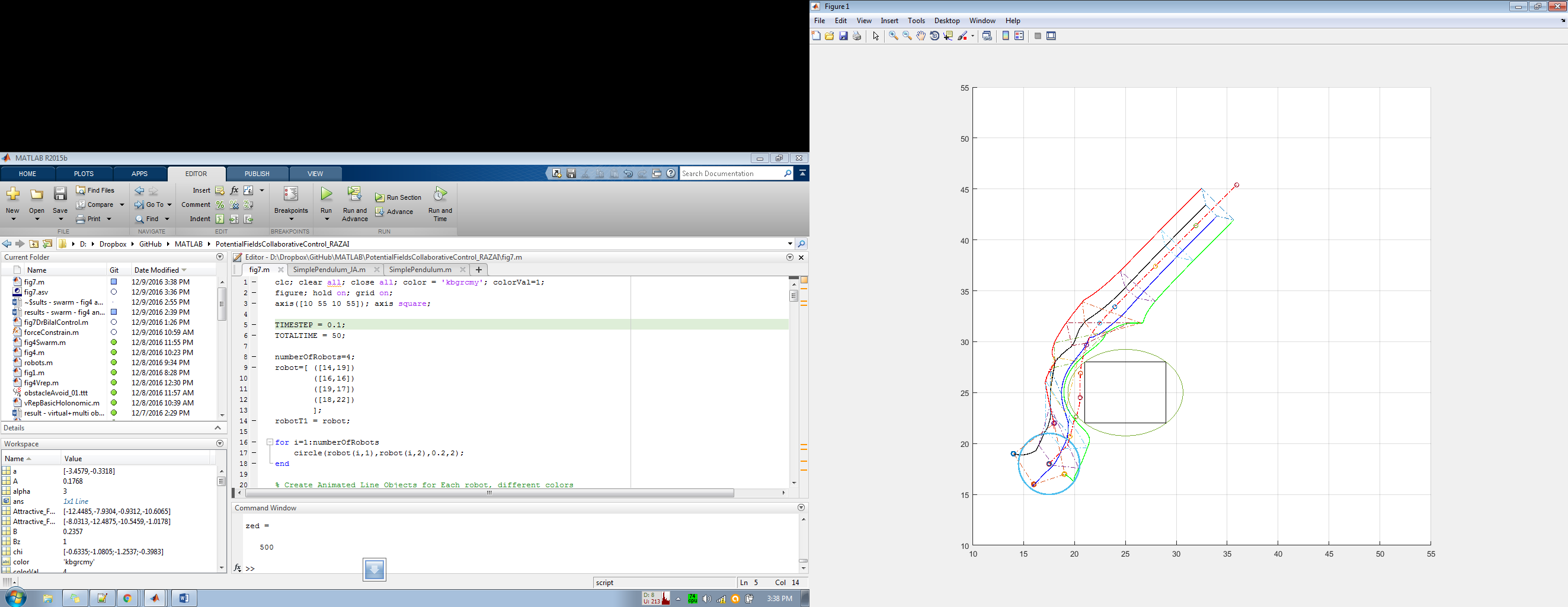
Swarm formation is not happening BEYOND obstacle.



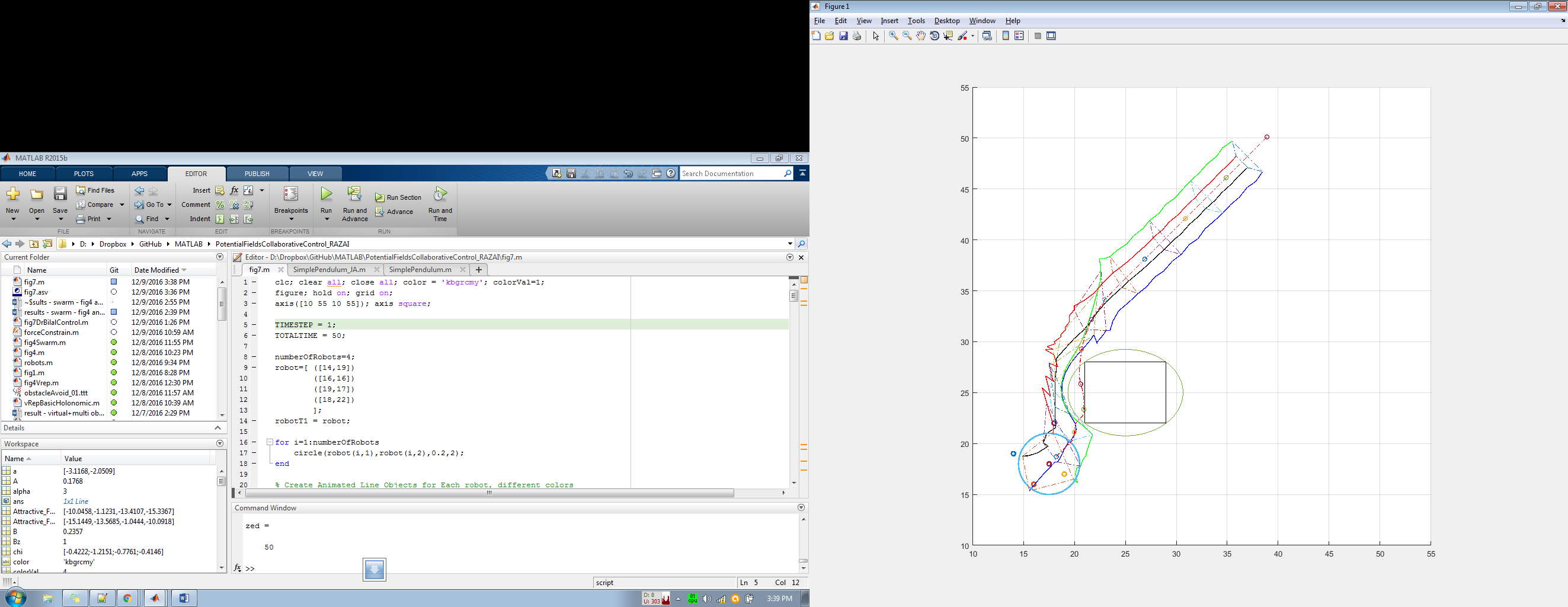
Comparison of result with similar parameters, form Sirs result.



Very LESS TIMESTEP = 0.01



TIMESTEP = 0.1



TIMESTEP = 1