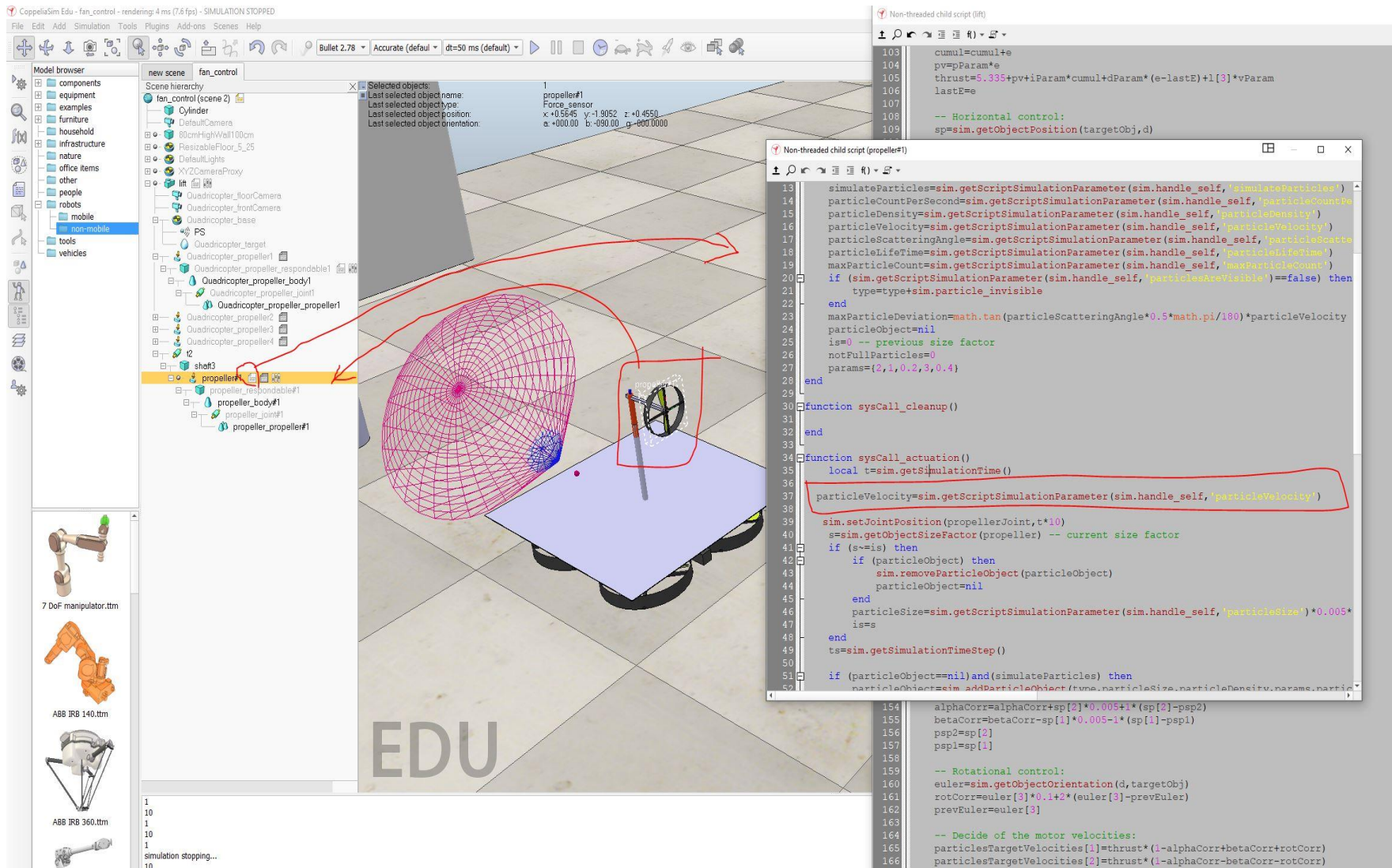


To control fan speed:

1) Inside the propeller script add this line under actuation function (in my sample it is line 37):

- `particleVelocity = sim.getScriptSimulationParameter(sim.handle_self , 'particleVelocity')`



2) Inside the main script:

- Under sysCall_init function add this line (in my sample it is line 74):
 - i. quad = sim.getScriptHandle('propeller#1')
- 'propeller#1' is my fan's name which contains the propeller script. Check yours to see what the name of your fan is.

The screenshot shows the CoppeliaSim Edu interface. On the left is the 'Model browser' with categories like components, equipment, examples, furniture, household, infrastructure, nature, office items, other, people, robots, and mobile. The 'Scene hierarchy' in the center shows a tree structure for a quadcopter simulation, with 'propeller#1' highlighted. On the right is the 'Non-threaded child script (RHS)' editor showing the 'sysCall_init' function. A red arrow points from the 'propeller#1' object in the hierarchy to line 74 in the script, which is 'quad = sim.getScriptHandle('propeller#1')'. Another red arrow points from the 'propeller#1' object in the hierarchy to the 'propeller#1' object in the 3D view.

```

10
11 function sysCall_init()
12     -- Make sure we have version 2.4.13 or above (the particles are not supported
13     v=sim.getInt32Parameter(sim.intparam_program_version)
14     if (v<20413) then
15         sim.displayDialog('Warning','The propeller model is only fully supported
16     end
17
18     -- Detach the manipulation sphere:
19     targetObj=sim.getObjectHandle('Quadcopter_target')
20     sim.setObjectParent(targetObj,-1,true)
21
22     -- This control algo was quickly written and is dirty and not optimal. It just
23
24     d=sim.getObjectHandle('Quadcopter_base')
25
26     particlesAreVisible=sim.getScriptSimulationParameter(sim.handle_self,'particlesAreVisible')
27     sim.setScriptSimulationParameter(sim.handle_tree,'particlesAreVisible',tostring
28     simulateParticles=sim.getScriptSimulationParameter(sim.handle_self,'simulateParticles')
29     sim.setScriptSimulationParameter(sim.handle_tree,'simulateParticles',tostring
30
31     propellerScripts={-1,-1,-1,-1}
32     for i=1,4,1 do
33         propellerScripts[i]=sim.getScriptHandle('Quadcopter_propeller_responsable')
34     end
35     hell=sim.getObjectAssociatedWithScript(sim.handle_self)
36
37     particlesTargetVelocities={0,0,0,0}
38
39     pParam=2
40     iParam=0
41     dParam=0
42     vParam=-2
43
44     cumul=0
45     lastE=0
46     pAlpha=0
47     pBeta=0
48     psp2=0
49     psp1=0
50
51     prevEuler=0
52
53
54     fakeShadow=sim.getScriptSimulationParameter(sim.handle_self,'fakeShadow')
55     if (fakeShadow) then
56         shadowCont=sim.addDrawingObject(sim.drawing_dispoints+sim.drawing_cyclic
57     end
58
59     -- Prepare 2 floating views with the camera views:
60     floorCam=sim.getObjectHandle('Quadcopter_floorCamera')
61     frontCam=sim.getObjectHandle('Quadcopter_frontCamera')
62     floorView=sim.floatingViewAdd(0.9,0.9,0.2,0.2,0)
63     frontView=sim.floatingViewAdd(0.7,0.9,0.2,0.2,0)
64     sim.adjustView(floorView,floorCam,64)
65     sim.adjustView(frontView,frontCam,64)
66
67     sonar = sim.getObjectHandle('ps1')
68     max_dist = 1
69
70     joint01 = sim.getObjectHandle('thr')
71     last_time = sim.getSimulationTime()
72     ccw = false
73
74     quad = sim.getScriptHandle('propeller#1')
75
76
77 end
78
  
```


3) In the main script >> under sysCall_actuation function:

- By changing the “particleVelocity” parameter of your fan you can control the speed of it. The “particleVelocity” parameter works with both positive and negative values (you can check it for you forward and backward movements)
- To set a value for a parameter from other scripts you need to use:
 - i. `sim.setScriptSimulationParameter(script handle , parameter , value)`
- In my sample you can see this command in lines 122 and 131

