—Python-based codes for constructing and animating two-stage gear train—

Contact Dr. Khalif H. Harib ([k.harib@uaeu.ac.ae](mailto:k.harib@uaeu.ac.ae)) or Prof. Sharif Ullah ([ullah@mail.kitami-it.ac.jp](mailto:ullah@mail.kitami-it.ac.jp)), if you have any query.

gear1 = Gear("blue", 16, 12)

gear2 = Gear("green", 16, 24)

gear3 = Gear("brown", 16, 12)

gear4 = Gear("purple", 16, 36)

#

omega\_o = 3

omega\_1 = 6 \* omega\_o

omega\_2\_3 = -3 \* omega\_o

omega\_4 = 1 \* omega\_o

while True:

theta\_1 += omega\_1 \* 0.005

theta\_2\_3 += omega\_2\_3 \* 0.005

theta\_4 += omega\_4 \* 0.005

#

gear1.rotate\_and\_translate(theta\_1, 112, CY)

gear2.rotate\_and\_translate(theta\_2\_3, 400, CY)

gear3.rotate\_and\_translate(theta\_2\_3, 400, CY)

gear4.rotate\_and\_translate(theta\_4, 784, CY)

root.update()

time.sleep(0.005)

root.mainloop()