

Python Programming Example Clock

```
# coding=UTF-8
from turtle import *
from datetime import *

def Skip(step):
    penup()
    forward(step)
    pendown()

def mkHand(name,length):
    reset()
    Skip(-length*0.1)
    begin_poly()
    forward(length*1.1)
    end_poly()
    handForm = get_poly()
    register_shape(name,handForm)

def Init():
    global secHand,minHand,hurHand,printer
    mode("logo")

    mkHand("secHand",125)
    mkHand("minHand",130)
    mkHand("hurHand",90)

    secHand = Turtle()
    secHand.shape("secHand")
    minHand = Turtle()
    minHand.shape("minHand")
    hurHand = Turtle()
    hurHand.shape("hurHand")

    for hand in secHand,minHand,hurHand:
        hand.shapesize(1,1,3)
        hand.speed(0)

    printer = Turtle()
    printer.hideturtle()
    printer.penup()

def SetupClock(radius):
```

```

reset()
pensize(7)
for i in range(60):
    Skip(radius)
    if i % 5 == 0:
        forward(20)
        Skip(-radius-20)
    else:
        dot(5)
        Skip(-radius)
    right(6)

def Week(t):
    week = ["Mon", "Tues", "Wed", "Thur", "Fri", "Sat", "Sun"]
    return week[t.weekday()]

def Date(t):
    y = t.year
    m = t.month
    d = t.day
    return "%s %d %d" % (y, m, d)

def Tick():
    t = datetime.today()
    second = t.second + t.microsecond * 0.000001
    minute = t.minute + second/60.0
    hour = t.hour + minute/60.0
    secHand.setheading(6*second)
    minHand.setheading(6*minute)
    hurHand.setheading(30*hour)
    tracer(False)
    printer.forward(65)
    printer.write(Week(t),align="center",font=("Courier",14,"bold"))
    printer.back(130)
    printer.write(Date(t),align="center",font=("Courier",14,"bold"))
    printer.home()
    tracer(True)
    ontimer(Tick,100)

def main():
    tracer(False)
    Init()
    SetupClock(160)
    tracer(True)
    Tick()

```

```
    mainloop()
if __name__ == "__main__":
    main()
```

