```
##  Ici on a  les bouts de code du maison
<from genieCivilOuvrage2D import*
# ça permet d'accélèrer le dessein
# speed("fastest")
speed("fast")
# ça permet de définir la taille de l'écran
setup(1400,600)
def porte(long, larg):
    rectangle(long, larg, "Silver")

def twite(x,y):
    rectangle(180,60,"")
    penup()
    goto(x,y)
    pendown()
    triangle(110,100,181,"LightGreen")

def fenetre(long,larg,x,y):
    for i in range(2):
        penup()
        goto(x,y)
        pendown()
        rectangle(long,larg,"White")
        x = x + long
def grandTwite(couleur):
    fillcolor(couleur)
    begin_fill()
    left(152)
    penup()
    goto(-252, 203)
    pendown()
```

```
    forward(430)

    right(152)
    forward(110)
    right(28)
    forward(252)

    right(32)
    forward(100)
    end_fill()

def petitFenetre(x):
    for i in range(2):
        penup()
        goto(x,90)
        pendown()
        rectangle(15,30,"Silver")
        x = x + 15

def programmePrincipale():
    penup()
    goto(-500,-300)
    pendown()
    rectangle(960,350,"GainsBoro")

    penup()
    goto(-500,-300)
    pendown()
    rectangle(960,10,"White")

    # Implémentation des trois portes à gauche
```

```
penup()
goto(-490,-285)
pendown()
porte(100,300)
fenetre(43,80,-485, -275)
fenetre(43,80,-485, -195)
fenetre(43,43,-485, -80)
fenetre(43,43,-485, -37)


penup()
goto(-380,-285)
pendown()
porte(100,300)
fenetre(43,80,-375, -275)
fenetre(43,80,-375, -195)
fenetre(43,43,-375, -80)
fenetre(43,43,-375, -37)

penup()
goto(-270,-285)
pendown()
porte(100,300)
fenetre(43,80,-265, -275)
fenetre(43,80,-265, -195)
fenetre(43,43,-265, -80)
fenetre(43,43,-265, -37)


# Implémentation du portes centrale et scallié
penup()
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```
goto(-100,-290)
pendown()
rectangle(130,315,"")

penup()
goto(-92,-290)
pendown()
rectangle(115,88,"")

penup()
goto(-100,-202)
pendown()
rectangle(130,16,"")
x = -80
y = -290
a = 85
for i in range(0,7):
    penup()
    goto(x,y)
    pendown()
    rectangle(a,14,"")
    x = x + 5
    y = y + 15
    a = a - 10

penup()
goto(-92,-186)
pendown()
rectangle(110,210,"")

penup()
```

```
goto(-80,-186)
pendown()
porte(88,210)
#rectangle(88,210,"Silver")

fenetre(33,48,-70, -185)
fenetre(33,48,-70, -138)

penup()
goto(-5,-90)
pendown()
demiCercle(32,"Silver")

penup()
goto(-42,-40)
pendown()
cercle(9,"Black")

fenetre(20,30,-55, -20)

# Implémentation des trois portes à droite
penup()
goto(110,-285)
pendown()
porte(100,300)
fenetre(43,80,115, -275)
fenetre(43,80,115, -195)
fenetre(43,43,115, -80)
fenetre(43,43,115, -37)

penup()
```

```
goto(220,-285)
pendown()
porte(100,300)
fenetre(43,80,225, -275)
fenetre(43,80,225, -195)
fenetre(43,43,225, -80)
fenetre(43,43,225, -37)

penup()
goto(330,-285)
pendown()
porte(100,300)
fenetre(43,80,335, -275)
fenetre(43,80,335, -195)
fenetre(43,43,335, -80)
fenetre(43,43,335, -37)

# Implémentation du "daale"
penup()
goto(-528,90)
pendown()
trapeze(1012,45,961,45,"GainsBoro")

right(120)
penup()
goto(-127,25)
pendown()
rectangle(185,66,"White")

#right(90)
penup()
```

```
    goto(-350, 90)
    pendown()
    twite(-350,150)

    right(210)
    penup()
    goto(80,92)
    pendown()
    twite(80,150)

    grandTwite("LightGreen")

    right(145)
    petitFenetre(-330)
    petitFenetre(-280)
    petitFenetre(-230)

    petitFenetre(-157)
    petitFenetre(-100)
    petitFenetre(-60)
    petitFenetre(-20)
    petitFenetre(30)

    petitFenetre(100)
    petitFenetre(150)
    petitFenetre(200)

if __name__=="__main__":
    #Couleur du background
    #bgcolor("LightGrey")
    #appel du fonction principale
```

```
        programmePrincipale()
        done()
```

```
# Là on a la les bouts de code du maison

from genieCivilOuvrage2D import*
speed("fast")
setup(1400,600)

# fonction pour les demi ellipses
def demiEllipse(x,y,rayon):
    pencolor("blue")
    width(3)
    penup()
    goto(x,y)
    pendown()
    for i in range(1):
        seth(90)
        circle(60,45)
        circle(rayon,90)
        circle(60,45)
        seth(0)
        fd(315)


# fonction pour tracer les traits verticaux
def traitVertical(x,y,z,a,b):
```

```
    pencolor("blue")
    width(3)
    goto(x,y)
    pendown()
    seth(90)
    rt(90)
    fd(a)
    backward(z)
    lt(90)
    fd(b)
    up()

# fonction pour les lignes obliques
def ligneOblique(x,y,a,b):
    pencolor("blue")
    width(3)
    up()
    goto(x,y)
    pendown()
    seth(90)
    lt(a)
    fd(b)
    backward(b)
    up()



# Pour la construction du support
def supportPont(x,y,long,larg):
    begin_fill()
    up()
    goto(x,y)
```

```
    rectangle(long,larg,"blue")
    end_fill()

def programmePrincipal():

    # dessin du support
    supportPont(-30,-25,75,25)
    supportPont(-60,-50,135,25)
    supportPont(290,-25,75,25)
    supportPont(260,-50,135,25)

    # dessin des demi ellipses
    demiEllipse(0,0,200)
    demiEllipse(321,0,200)
    demiEllipse(642,0,200)

    # Les traits verticaux pour la premiere demi ellipse
    traitVertical(-20,0,300,50,67)
    traitVertical(0,0,280,50,85)
    traitVertical(20,0,260,50,95)
    traitVertical(40,0,240,50,98)
    traitVertical(60,0,220,50,95)
    traitVertical(80,0,200,50,77)
    traitVertical(100,0,180,50,53)

    # Traits verticaux pour la deuxieme demi ellipse
    traitVertical(140,0,150,50,58)
    traitVertical(160,0,130,50,80)
    traitVertical(180,0,110,50,95)
    traitVertical(200,0,90,50,100)
    traitVertical(220,0,70,50,95)
```

```
traitVertical(240,0,50,50,85)
traitVertical(260,0,30,50,60)

# Traits verticaux pour la troisieme ellipse
traitVertical(310,0,-10,50,65)
traitVertical(330,0,-30,50,85)
traitVertical(350,0,-50,50,95)
traitVertical(370,0,-70,50,100)
traitVertical(390,0,-90,50,95)
traitVertical(410,0,-110,50,80)
traitVertical(430,0,-130,50,55)

# traits obliques pour la premiere demi ellipse
ligneOblique(-270,0,45,50)
ligneOblique(-270,0,-25,95)
ligneOblique(-190,0,25,93)
ligneOblique(-190,0,-22,105)
ligneOblique(-110,0,22,105)
ligneOblique(-110,0,-27,87)
ligneOblique(-31,0,26,88)
ligneOblique(-31,0,-45,36)

# traits obliques pour la deuxieme deuxieme demi ellipse
ligneOblique(40,0,45,40)
ligneOblique(40,0,-26,95)
ligneOblique(120,0,26,92)
ligneOblique(120,0,-22,105)
ligneOblique(200,0,22,105)
ligneOblique(200,0,-26,92)
ligneOblique(280,0,26,90)
ligneOblique(280,0,-45,45)
```

```
    # traits obliques pour la troisieme demi ellipse
    ligneOblique(370,0,45,50)
    ligneOblique(370,0,-25,95)
    ligneOblique(450,0,25,93)
    ligneOblique(450,0,-22,105)
    ligneOblique(530,0,22,105)
    ligneOblique(530,0,-26,88)
    ligneOblique(610,0,26,89)
    ligneOblique(610,0,-45,36)




if __name__ == '__main__':

    programmePrincipal()

exitonclick()
done()
```