# Работа. Изображение

## Код программы

WD = 500  
ZR = WD / 2  
KF = 10  
  
  
def dec\_to\_scr(cords):  
 return round(cords[0] \* KF + ZR), round(ZR - cords[1] \* KF)  
  
  
def axis():  
 cnvs.create\_line(0, 250, 500, 250, arrow=LAST, fill='green')  
 cnvs.create\_line(250, 500, 250, 0, arrow=LAST, fill='green')  
 cnvs.create\_text(WD - 20, ZR + 20, text='X')  
 cnvs.create\_text(ZR - 20, 20, text='Y', )  
 vals = [i for i in range(-50, 50, 5)]  
 cords = [int(ZR + i\*KF) for i in vals]  
 for i in range(len(cords)):  
 cnvs.create\_oval(cords[i], ZR, cords[i] + 2, ZR + 2, fill='green')  
 cnvs.create\_text(cords[i] + 5, ZR + 10, text=str(vals[i]), fill='green')  
 cnvs.create\_oval(ZR, cords[i], ZR + 2, cords[i] + 2, fill='green')  
 cnvs.create\_text(ZR + 5, cords[i] + 10, text=str(-vals[i]), fill='green')  
  
  
def draw():  
 # Антенна  
 cnvs.create\_oval(dec\_to\_scr((-1, 22)), dec\_to\_scr((1, 24)), fill='gray', outline='black')  
 cnvs.create\_polygon(dec\_to\_scr((-0.5, 22)), dec\_to\_scr((-1.1, 15)), dec\_to\_scr((1.1, 15)), dec\_to\_scr((0.5, 22)),  
 fill='gray', outline='black')  
 # Фон головы  
 cnvs.create\_oval(dec\_to\_scr((-12.5, -5)), dec\_to\_scr((12.5, 15)), fill='gray', outline='gray')  
 cnvs.create\_polygon(dec\_to\_scr((-12.5, 5)), dec\_to\_scr((12.5, 5)), dec\_to\_scr((12.5, -20)),  
 dec\_to\_scr((-12.5, -20)), fill='gray', outline='gray')  
 # Глаза, задний фон  
 cnvs.create\_oval(dec\_to\_scr((5.5, -5.5)), dec\_to\_scr((15.5, 5.5)), fill='gray', outline='gray')  
 cnvs.create\_oval(dec\_to\_scr((-15.5, -5.5)), dec\_to\_scr((-5.5, 5.5)), fill='gray', outline='gray')  
 cnvs.create\_polygon(dec\_to\_scr((-10.5, -5.5)), dec\_to\_scr((10.5, -5.5)), dec\_to\_scr((10.5, 5.5)),  
 dec\_to\_scr((-10.5, 5.5)), fill='gray', outline='gray')  
  
 # Глаза  
 cnvs.create\_oval(dec\_to\_scr((5, -5)), dec\_to\_scr((15, 5)), fill='black', outline='black')  
 cnvs.create\_oval(dec\_to\_scr((-15, -5)), dec\_to\_scr((-5, 5)), fill='black', outline='black')  
 cnvs.create\_polygon(dec\_to\_scr((-10, -5)), dec\_to\_scr((10, -5)), dec\_to\_scr((10, 5)),  
 dec\_to\_scr((-10, 5)), fill='black', outline='black')  
 # Глазные яблоки  
 cnvs.create\_oval(dec\_to\_scr((2, -4.5)), dec\_to\_scr((12, 4.5)), fill='#fff399')  
 cnvs.create\_oval(dec\_to\_scr((-12, -4.5)), dec\_to\_scr((-2, 4.5)), fill='#fff399')  
 cnvs.create\_rectangle(dec\_to\_scr((6.5, -0.5)), dec\_to\_scr((7.5, 0.5)), fill='black')  
 cnvs.create\_rectangle(dec\_to\_scr((-7.5, -0.5)), dec\_to\_scr((-6.5, 0.5)), fill='black')  
 # Рот задний фон  
 cnvs.create\_oval(dec\_to\_scr((-12, -16)), dec\_to\_scr((-10, -9)), fill='black', outline='black')  
 cnvs.create\_oval(dec\_to\_scr((10, -16)), dec\_to\_scr((12, -9)), fill='black', outline='black')  
 cnvs.create\_rectangle(dec\_to\_scr((-11, -16)), dec\_to\_scr((11, -9)), fill='black', outline='black')  
 # Рот  
 cnvs.create\_oval(dec\_to\_scr((-11.5, -15.5)), dec\_to\_scr((-10, -9.5)), fill='#fff399', outline='#fff399')  
 cnvs.create\_oval(dec\_to\_scr((10, -15.5)), dec\_to\_scr((11.5, -9.5)), fill='#fff399', outline='#fff399')  
 cnvs.create\_rectangle(dec\_to\_scr((-11, -15.5)), dec\_to\_scr((11, -9.5)), fill='#fff399', outline='#fff399')  
 # "Зубы"  
 cnvs.create\_line(dec\_to\_scr((-11.75, -11.5)), dec\_to\_scr((11.75, -11.5)))  
 cnvs.create\_line(dec\_to\_scr((-11.75, -13.5)), dec\_to\_scr((11.75, -13.5)))  
 cnvs.create\_line(dec\_to\_scr((-11, -9)), dec\_to\_scr((-11, -16)))  
 cnvs.create\_line(dec\_to\_scr((-6.6, -9)), dec\_to\_scr((-6.6, -16)))  
 cnvs.create\_line(dec\_to\_scr((-2.2, -9)), dec\_to\_scr((-2.2, -16)))  
 cnvs.create\_line(dec\_to\_scr((2.2, -9)), dec\_to\_scr((2.2, -16)))  
 cnvs.create\_line(dec\_to\_scr((6.6, -9)), dec\_to\_scr((6.6, -16)))  
 cnvs.create\_line(dec\_to\_scr((11, -9)), dec\_to\_scr((11, -16)))

## Результат

