**Initio Programming: WS9 Sample Answers and Troubleshooting**

**Sample Answer 1:** The program prints “Waiting” until something comes closer than 5cm. Then it “nods its head”.

**Sample Answer 2:** Notice that three while loops are needed - wait for the switch to be switched on, wait for the switch to be switched off and then wait for the switch to be switched on again. Students may need some help thinking through this.

import robohat as initio, time

initio.init()

while (initio.getDistance() > 5):

print(“Waiting”)

initio.setServo(1, 20)

while not (initio.getDistance() > 5):

print(“Waiting for Obstacle to Move”)

while (initio.getDistance() > 5):

print(“Still Waiting”)

initio.setServo(1, 0)

**Sample Answer 3:** not (initio.getDistance() > 5)

**Program:**

import robohat as initio, time

initio.init()

if not (initio.getDistance() > 5):

initio.forward(10)

while (initio.getDistance() > 5):

print(“Waiting for Obstacle”)

initio.stop()

**Sample Answer 4:** not (initio.irLeft() or initio.irRight())

or alternatively (not (initio.irLeft()) and not (initio.irRight())

**Program:**

import robohat as initio, time

initio.init()

if (not (initio.irLeft() or initio.irRight())):

initio.forward(10)

while (not (initio.irLeft() or initio.irRight())):

print(“Still Advancing”)

initio.stop()



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