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1 import asyncio as asyncio
2 from agbot import AgBot
3 from clock import Clock
4
5 import time
6
7 class Controller:
8     @classmethod
9     def get_default_controller(cls):
10         agBot = AgBot.get_default_agbot()
11         clock = Clock.get_default_clock()
12         return Controller(agBot, clock)
13
14     def __init__(self, agbot, clock):
15         self.agbot = agbot
16         self.clock = clock
17         self.agbot.stop()
18
19     async def take_moisture_reading(self):
20         moisture = await self.agbot.read()
21         print(f"Moisture level: {moisture:.2f}%")
22
23     async def water_plant(self, water_amount: float):
24         print(f"Watering with {water_amount} units...")
25         await self.agbot.water(water_amount)
26
27     async def routine(self, moisture_threshold: float, water_amount: float):
28         moisture = await self.agbot.read()
29         print(f"Moisture level: {moisture:.2f}%")
30         if moisture > moisture_threshold:
31             print("Moisture low – watering...")
32             await self.agbot.water(water_amount)
33         else:
34             print("Moisture OK – no watering.")
35
36 if __name__ == "__main__":
37
38     print("Welcome to the AgXRP Mini!\n")
39     time.sleep(2)
40
41     print("Choose an option:")
42     print("1. Take a moisture reading.")
43     print("2. Water a plant.")
44     print("3. Both!\n")
45
46     choice = input("Enter 1, 2, or 3: ")
47
48     controller = Controller.get_default_controller()
49
50     if choice == "1":
51         asyncio.run(controller.take_moisture_reading())
52
53     elif choice == "2":
54         water_amount = float(input("Enter water amount: "))
55         asyncio.run(controller.water_plant(water_amount))
56         print("\nDone!")
57
58     elif choice == "3":
59         moisture_threshold = float(input("Enter moisture threshold (%): "))
60         water_amount = float(input("Enter water amount: "))
61         asyncio.run(controller.routine(moisture_threshold, water_amount))
62         print("\nDone!")
63
64     else:

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65 |  
66 |  
67 |  
    print("Invalid choice. Please run the program again.")
```