

```
Jul 20 15:54 •  
mobilearm@mobilearm: ~  
  
Target Shelf: 50 cm  
Obstacle: 75.05 cm | ↗ Traveled: 5.58 cm  
Obstacle: 104.21 cm | ↗ Traveled: 11.41 cm  
Obstacle: 107.59 cm | ↗ Traveled: 17.19 cm  
Obstacle: 96.76 cm | ↗ Traveled: 22.96 cm  
Obstacle: 175.13 cm | ↗ Traveled: 28.9 cm  
Obstacle: 154.01 cm | ↗ Traveled: 34.83 cm  
Obstacle: 128.26 cm | ↗ Traveled: 40.76 cm  
Obstacle: 137.71 cm | ↗ Traveled: 46.58 cm  
Obstacle: 124.98 cm | ↗ Traveled: 52.48 cm  
Reached shelf at 50 cm  
[ WARN@020.083] global ./modules/videoto/src/cap_gstreamer.cpp (1405) open OpenCV | GStreamer warning: Cannot query video position: status=0, value=-1, duration=-1  
Looking for marker ID: 3 (Press 'q' to quit)  
Detected: X=-0.02m, Y=-0.04m, Z=0.18m  
Sent to Arduino: [0, 30, 0, 70, 60, 45]  
Sent to Arduino: [0, 112, 45, 70, 90, 45]  
Waiting 5s at object location...  
Sent to Arduino: [0, 112, 45, 70, 90, 1]  
Sent to Arduino: [0, 30, 0, 70, 60, 1]  
✓ Pick-and-place done  
mobilearm@mobilearm: ~ $ python3 final_test1.py  
^C[Traceback (most recent call last):  
  File "/home/mobilearm/final_test1.py", line 11, in <module>  
    time.sleep(2)  
KeyboardInterrupt  
  
mobilearm@mobilearm: ~ $ python3 final_test1.py  
Sent to Arduino: [0, 30, 0, 70, 60, 1]  
Input mode (voice/text): text  
Enter your command (e.g., 'take red box from shelf A'): shelf a  
✓ You entered: shelf a  
  
Target Shelf: 50 cm  
Obstacle: 172.22 cm | ↗ Traveled: 5.59 cm  
Obstacle: 190.64 cm | ↗ Traveled: 11.75 cm  
Obstacle: 184.45 cm | ↗ Traveled: 17.66 cm  
Obstacle: 126.62 cm | ↗ Traveled: 23.72 cm  
Obstacle: 76.18 cm | ↗ Traveled: 29.69 cm  
Obstacle: 157.06 cm | ↗ Traveled: 35.42 cm  
Obstacle: 154.01 cm | ↗ Traveled: 41.4 cm  
Obstacle: 141.65 cm | ↗ Traveled: 47.38 cm  
Obstacle: 128.63 cm | ↗ Traveled: 53.23 cm  
Reached shelf at 50 cm  
[ WARN@028.409] global ./modules/videoto/src/cap_gstreamer.cpp (1405) open OpenCV | GStreamer warning: Cannot query video position: status=0, value=-1, duration=-1  
Looking for marker ID: 3 (Press 'q' to quit)  
Detected: X=-0.01m, Y=-0.01m, Z=0.12m  
Sent to Arduino: [0, 30, 0, 70, 60, 45]  
Sent to Arduino: [0, 82, 3, 70, 90, 45]  
Waiting 5s at object location...  
Sent to Arduino: [0, 82, 3, 70, 90, 1]  
Sent to Arduino: [0, 30, 0, 70, 60, 1]  
✓ Pick-and-place done  
mobilearm@mobilearm: ~ $ python3 final_test1.py
```