Nao Robot:

Small humanoid robot with 25 degrees of freedom, 7 touch sensors, microphones, speech recognition, and two cameras. The little guy is about 2 feet tall (58cm).
Product page https://www.aldebaran.com/en/nao

Sensors:

Touch: http://doc.aldebaran.com/1-14/family/robots/contact-sensors_robot.html#robot-contact-sensors

Video: http://doc.aldebaran.com/1-14/family/robots/video_robot.html

Range (from chest): http://doc.aldebaran.com/1-14/family/robots/sonar_robot.html

Every joint has encoders

Microphones: http://doc.aldebaran.com/1-14/family/robots/microphone_robot.html

IMU: http://doc.aldebaran.com/1-14/family/robots/inertial_robot.html

Pros:

- OpenCV support
- API has nice things like joint position interpolation
- Simulation support http://doc.aldebaran.com/1-14/ref/simulator_sdk.html
- Floating body inverse kinematics already done (can walk) http://doc.aldebaran.com/1-14/naoqi/motion/control-cartesian.html
- Extremely detailed measurements
- Difficult, but possible to add sensors https://www.frontiersin.org/articles/10.3389/frobt.2022.840335/full

Cons:

- May have to climb on table
- No touch sensors on fingers
- Only version 4 models have some area of binocular vision
- API has very strong opinions http://doc.aldebaran.com/1-14/dev/naoqi/index.html#naoqi-overview

API:

Python version: http://doc.aldebaran.com/1-14/dev/python/index.html

C++ version: http://doc.aldebaran.com/1-14/dev/cpp/index.html#cpp-introduction

Pepper Robot:

Overview:

Medium wheeled robot with two arms and a tablet, 4 touch sensors, microphones, speech recognition, 2D, and 3D cameras. Pepper is about 4 feet tall (120cm).

Product page https://us.softbankrobotics.com/pepper

Sensors:

Touch: http://doc.aldebaran.com/2-5/family/pepper_technical/contact-sensors_pep.html

Video: http://doc.aldebaran.com/2-5/family/pepper_technical/video_overview.html

3D camera: http://doc.aldebaran.com/2-5/family/pepper_technical/video_3D_pep.html#d-camera-pepper

Every joint has encoders

Microphones: http://doc.aldebaran.com/2-5/family/pepper_technical/microphone_pep.html

IMU: http://doc.aldebaran.com/2-5/family/pepper_technical/inertial_pep.html

Pros:

- Has a tablet for interaction
- API has nice things like joint position interpolation
- Floating body inverse kinematics already done (can walk)
- Extremely detailed measurements
- 3D camera

Cons:

- No touch sensors on fingers
- **Android SDK**

API:

Java only: https://qisdk.softbankrobotics.com/sdk/doc/pepper-sdk/

Sawyer Robot:

Overview:

Single arm industrial manufacturing robot.

Product page https://www.rethinkrobotics.com/sawyer/

Seems like a bad fit. This is built for interacting with large objects. The SDK is centered around getting it to learn how to do a task, it may be difficult to wrangle it to play uno.

SDK:

https://www.rethinkrobotics.com/intera