Tapster Robotics, Inc.

Tapster 3 and Tapster 3+ Robots
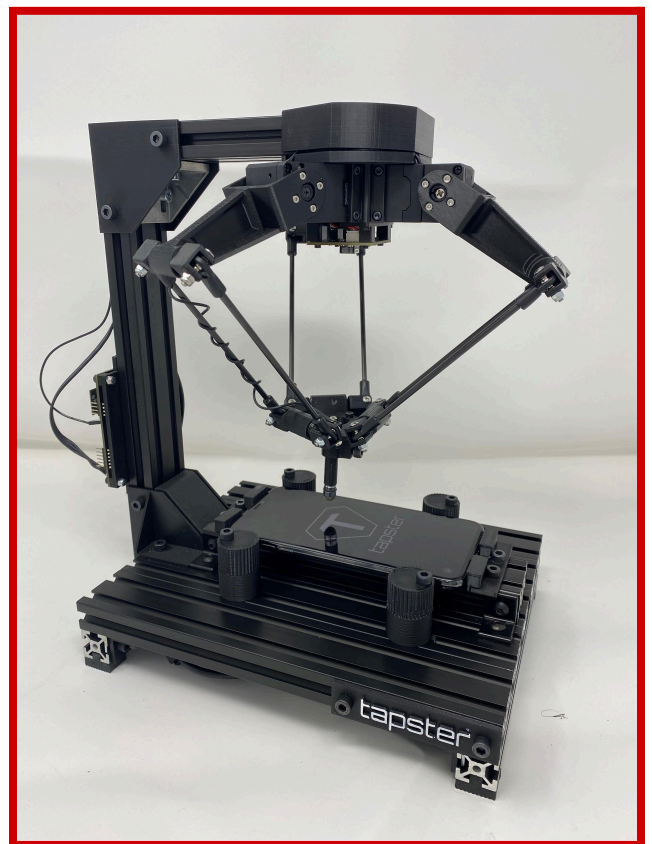OVERVIEW and SPECIFICATIONS

Product Description:

The Tapster 3 and 3+ robots tap and swipe the touchscreen of a mobile device just like a human finger does. The delta design provides a quick-moving robot for all of your functional testing needs. This product is equipped with a mounted 16MP USB camera and may be customized with a number of off-the-shelf and custom modules.

Product Features:

- Delta-design
- Fabric-tipped capacitive touchscreen end effector
- Sliding mounts and grips enable multiple configurations to secure the testing device to the base of the robot
- Mounted 16MP USB camera can capture screenshots, video, or enable computer vision applications
- Arrives assembled, tested, and ready to go with minimal set-up
- Includes all required power supplies and cables to connect to your computer as well as a small tool kit for adjustments
- Available modules include:
  - Push Button Module: sliding mounts and grips enable multiple configurations to press top or side buttons (eg., volume +/-, power)
  - Payment Pack: enables dipping a credit card with chip into a payment device and NFC payments/ simulations
  - Custom modules can be developed through a professional services engagement with Tapster Robotics

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SPECIFICATIONS

GENERAL

- *Materials:* a combination of aluminum extrusion, off the shelf nuts and bolts, and 3D printed parts (PLA) designed and 3D printed by Tapster Robotics

- *End effector:* fabric tipped stylus

- *Power supply:* 12V 5A (included)

ELECTRONICS

- *Motion System:* Dynamixel brand robot exclusive smart actuators with fully integrated DC Motor + Controller + Driver +Sensor + Reduction Gear +Network in one DC servo module (model Dynamixel XC430-W240-T)

- *Circuit Board:* custom designed by Tapster Robotics

- *Camera:* Arducam 16MP autofocus USB camera

CAPABILITIES

- *Gestures:* tap, long tap, swipe, push physical buttons

- Software: program with any language with a serial port like Python or Node.js

- *Repeatability:* (T3/T3+): ±.6mm / ±.9mm

- *Max force of tap (T3/T3+):* 34N±10N (3467±1019 grams) / 50±10N (5098±1019 grams)

- *Max speed (T3/T3+):* 371 mm per second / 352 mm per second

REQUIREMENTS

- Computer running Mac OS, Windows, or Linux

- USB port