

How must Samsung's smartphones and smartwatch go through a rigorous quality control process?

Samsung recently shared some pictures of its quality testing process for smartphones and smartwatch products by a device testing team called Reliability Test Group.

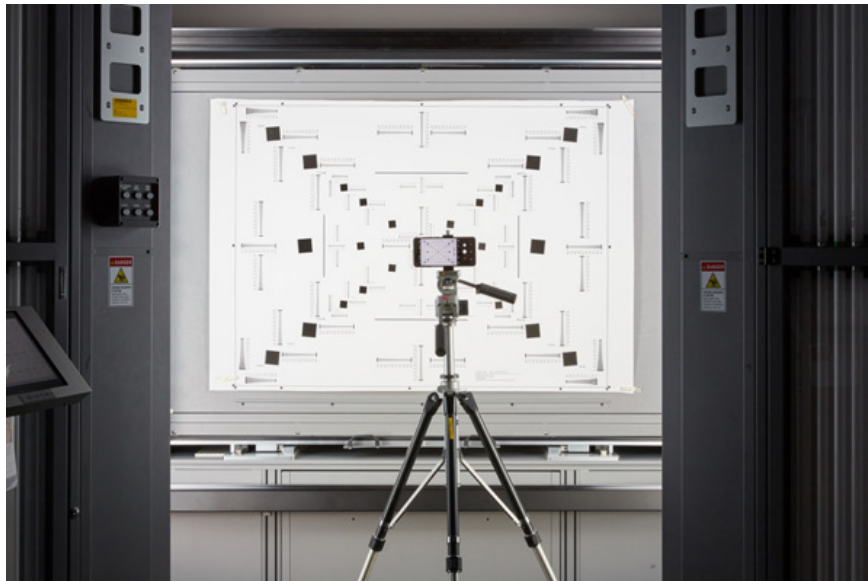
Samsung recently shared some pictures of its quality testing process for smartphones and smartwatch products by a device testing team called Reliability Test Group.

Test plans have been planned as soon as the specifications are determined. After a feedback loop has been formed, the team will receive a prototype of the product from the production unit and begin to evaluate the product. Finally, the team will make the necessary improvements on components.

Depending on the hardware of each product this process will vary but a device model may have to go through 12 different cycles.

Here are a few tests that Samsung's smartphones and smartwatch have just revealed.

Check image quality



The tests were conducted in a miniature real-world environment model (simulating indoor and outdoor conditions) where conditions were controlled. There, the camera can capture daylight and even nighttime thanks to an artificial lighting system. The system is also equipped with devices that provide specific brightness such as street neon light.



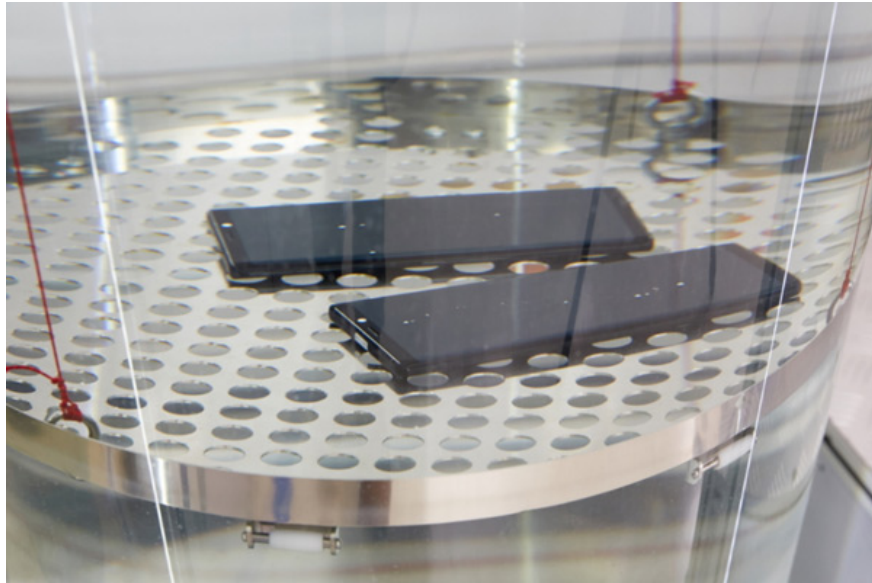
The machine is also taken out by the group to take the actual scene outside. Then, factors such as brightness, clarity (color clarity), noise (noise) . will be assessed.

Heat test



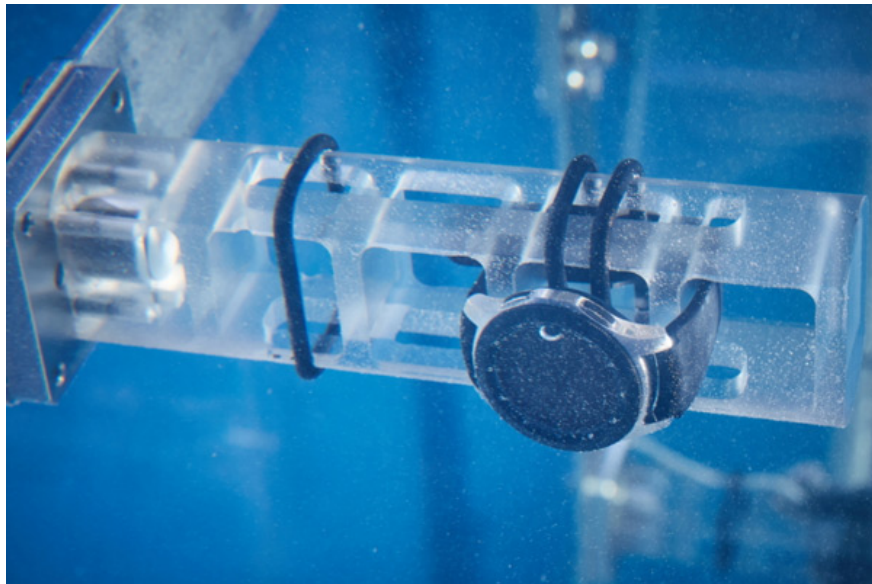
A temperature measurement camera is used to monitor the amount of heat emitted from the smartphone (how much heat is generated and from which area) when in use, be it playing games or opening applications. Use the camera for a long time.

Water resistance test



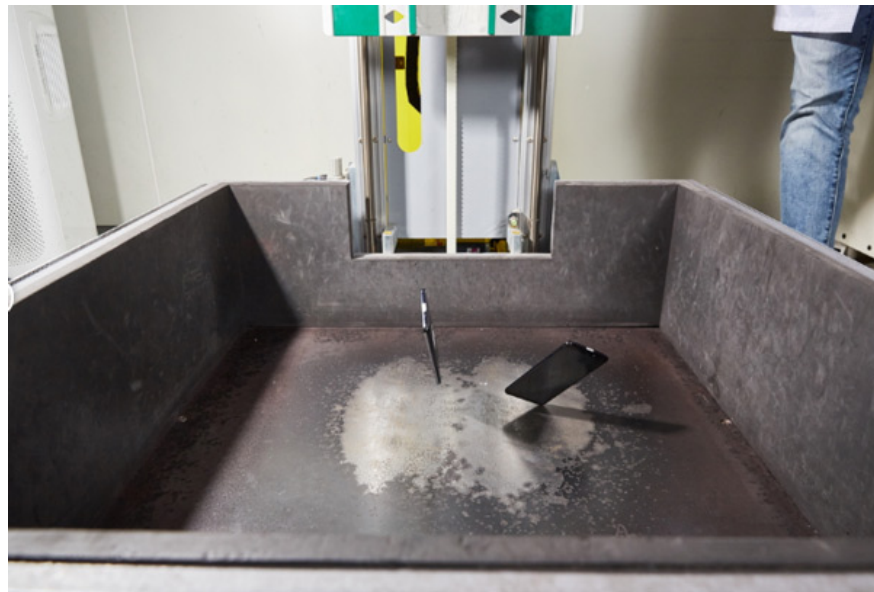
Many Samsung Galaxy series smartphones are equipped with IPX8 standard, which means they can survive when soaked for half an hour in water at a depth of 1.5m.

Smartwatch and strap will have to go through a test with a higher standard (5ATM) to ensure they still work well, even after 'swimming'.





Drop drop test



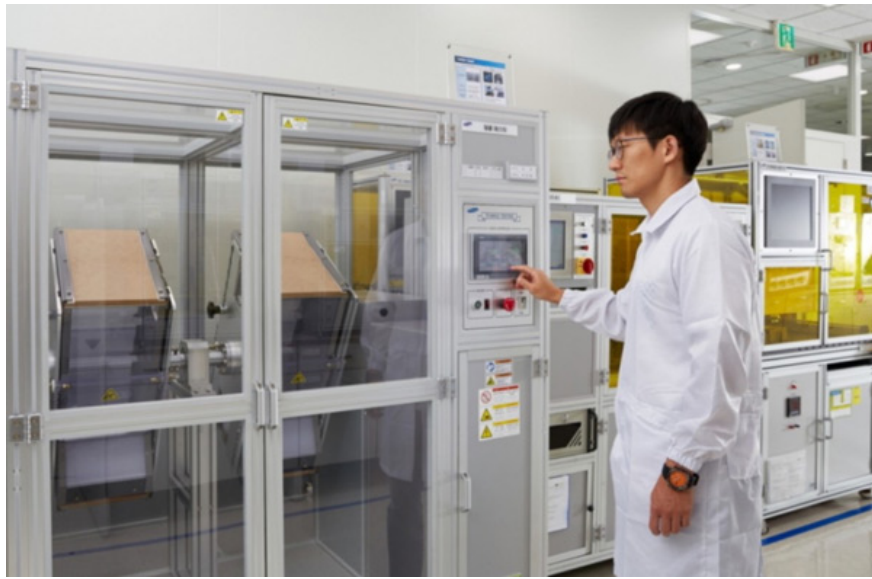
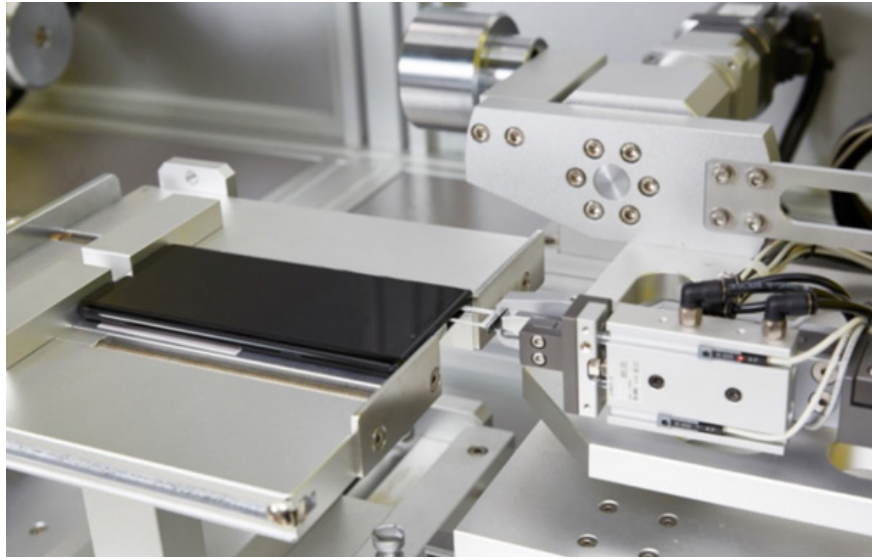
In order to find out the weaknesses of the machine, the group will drop the Smartphone free fall from different heights and at different drop angles. This entire process will be recorded by a high-speed frame camera to provide information to the manufacturer and therefore can design the device more durable.

Durability test



The group will "torture" the machine by rotating, applying force, performing continuously and repeating the user-induced effects, . to check the durability of the machine. Even, the group simulated the case of users putting smartphones in the pockets of their back pants and sitting on them.





Check the environmental impacts



This test is to test the sensitivity of the buttons on the device, to see if they change with temperature and humidity. An employee will try the buttons, the screen in a climate simulation model from everywhere, from different regions to assess the true feeling of people.

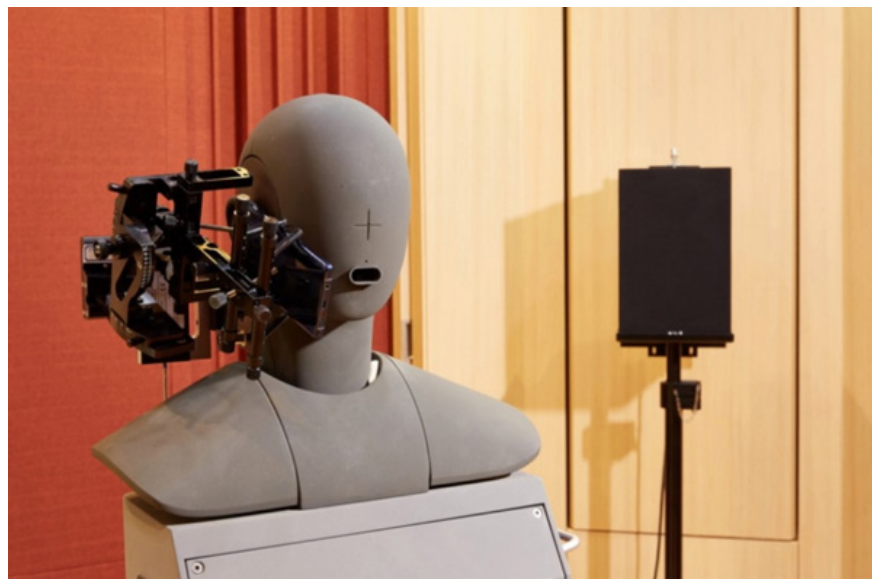
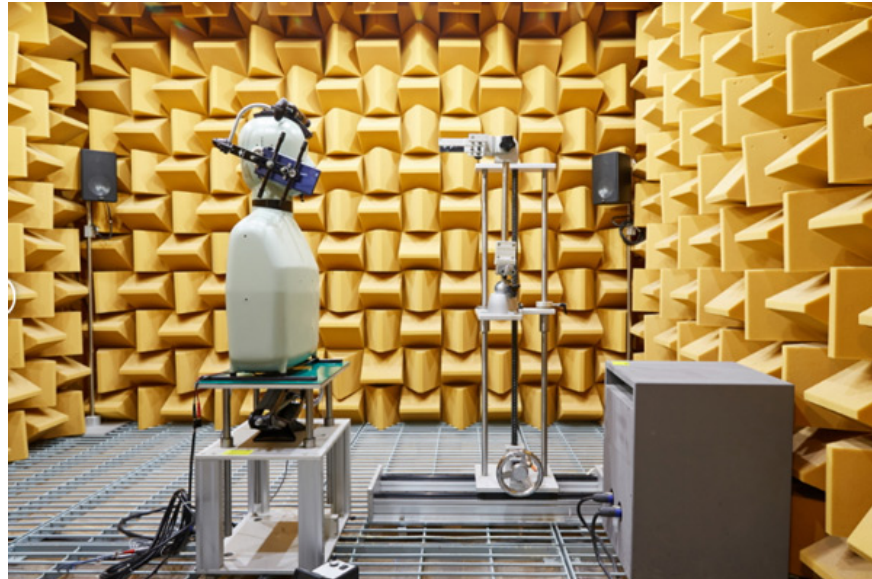




Sound check

Experts will use dummy and computers to check everything related to sound on the device, from calling, recording, using a Bluetooth headset, to playing a ringtone.





These audio tests will be performed in two chambers: one chamber will block all noise from the outside, and one chamber simulates a real environment.

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