Mobile Operating Systems

Some mobile devices are general-purpose computing devices like tablets or smartphones. Other mobile devices like fitness monitors, e-readers, and smartwatches, are designed to do a smaller set of tasks. General-purpose mobile devices generally use a mobile operating system that's derived from other operating systems. For example Android is derived from Linux and iOS shares a lot of core components with MacOS. So how are mobile operating systems different from the OSs that they're based on? Mobile devices run on batteries that have to be recharged or replaced on a regular basis and you want the device to last as long as possible between charges. So mobile operating systems are optimized to use as little power as possible, for example, by removing OS features and applications that the mobile device doesn't need. We also use motion, touch, and voice to interact with mobile devices in very different ways from desktop or server computers. This requires adding device drivers and support to the mobile operating system. More specialized mobile devices like fitness trackers, e-readers, and GPS devices, often use custom OSs that are optimized for what the device is designed to do. These devices are even more slimmed down to run on very minimal hardware with very minimal battery power. They might also be built using specialized chips and peripherals, which more general-purpose operating systems don't know how to run on.