### Hashtags: #spacetech, #spacewearables

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### Tags: Hardware

**Challenge Description**

Space is no longer accomplished by the public sector space agencies. Now, commercial space companies have expanded the market for space technology. Your challenge is to design wearable clothing and accessories that could be useful for space travelers and/or the engineers and technicians involved with ground processing spacecraft and rockets. If possible, build a prototype(s) (hardware or software) during the 48-hour Space Apps marathon.

Incorporate understanding of challenges of working in the hostile off-planet environment into your wearable space designs that can improve the quality and safety of our explorers.

**Background**

Wearables is a new emerging category of technology that allows a better integration of computers and the humans that use them. Wearables include things like (but are not limited to) fitness bands and augmented reality/display glasses. Astronauts on the International Space Station and on future human missions to other planets will be doing a lot of work that requires the use of both of their hands. They perform a multitude of tasks, from scientific experiments and facility maintenance to exercising and general living. Ground processing spacecraft and rockets for launch currently takes place over weeks to months. During this time, engineers and technicians are testing, fueling, integrating, monitoring and more the vehicle. This requires many of the ground processing people to be on the go and away from their computers, but needing to observe, record, and report information back on the vehicle status.

**Solution Ideas**

Here are some ways for you to frame this solution:

Design the wearables with current and near term technology; and/or designate who the primary users will be and how the wearable will assist them in their mission.

**Sample Resources**

* <http://www.nasa.gov/audience/foreducators/teachingfromspace/dayinthelife/>
* <http://www.nasa.gov/exploration/systems/ground/>
* <http://www.nasa.gov/launchservices/>
* <http://kscpartnerships.ksc.nasa.gov/en/What%20We%20Offer/Technical%20Capabilities>
* [http://tdglobal.ksc.nasa.gov/servlet/sm.web.Fetch/KHB-1863?rhid=1000&did=35173&type=released&rev=$latest](http://tdglobal.ksc.nasa.gov/servlet/sm.web.Fetch/KHB-1863?rhid=1000&did=35173&type=released&rev=%24latest)
* <http://www.nasa.gov/mission_pages/launch/atlas_V_count_101.html>
* <http://www.nasa.gov/mission_pages/launch/delta_IV_count_101.html>
* <http://kjcomps.6te.net/upload/paper1%20.pdf>
* <http://ieeexplore.ieee.org/xpl/login.jsp?reload=true&tp=&arnumber=6671832>
* <http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20020050547.pdf>
* <http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20040171149.pdf>
* <http://ntrs.nasa.gov/search.jsp>