

MICROTECHNICS/DRONES			
NGO Name	Theme	Challenge	Contact
<u>OMNIS</u>	3D printing	In Colombia, since the 2016 peace agreement, 750+ social leaders have been killed. OMNIS aims to empower social leaders by giving them access to technology, health and peace. An example of a project including a EPFL-LPAC collaboration and a university in Bogota is promoting the manufacturing of assistive devices via sustainable 3D printing processes for people and war victims with disabilities.	Nicholas Myers <u>nicholas@omnisinstitute.com</u>
Human Rights Watch	Drones	Can local communities use small, fixed-wing drones with a suite of air-quality sensors to monitor NO2, SO2 and HG concentrations near coal-fired power plants in the Balkans and Southern Africa; further, can in-situ drone measurements be used to validate/recalibrate related Sentinel-5P TROPOMI (L3) products for enhanced monitoring of coal-fired plants globally?	Josh Lyons <u>josh.lyons@hrw.org</u>
Human Rights Watch	Sensors/Monitoring	Can local communities use active ground sensors (e.g. LiDAR ToF) with onboard GPU AI/DL models to remotely monitor and send real-time alerts on vehicle traffic linked to illegal logging and mining activity for environmental assessments and criminal Investigations? Further, can in-situ volumetric measurements of logging vehicles be cross-validated with satellite-based deforestation datasets?	Josh Lyons josh.lyons@hrw.org