I would like to suggest an amendment. The inclusion of programmable firmware in orphan electronics for personal, domestic and commercial use. Especially where the copyright owner has ceased production or dissemination of parts and products. Way back in the day software updates were programmed into appliances by actually removing and replacing a socketed EPROM or more recently using JTAG or serial interfaces. This was before IoT cloud updates. Some of these appliances and parts are no longer being manufactured. the parent company no longer exists in some cases. In order to reduce e-waste and plumbum ending up in landfills. In order to preserve intangible culture. The intellectual property contained on these memory chips includes software and software updates that were only available to authorized repair centers. The blank memory chips are still produced in compatible formats today but the firmware integral to the operation of commodity products is not. I am talking about 30 to 40 year old 4kB to 256kB memory chips. 4kB of RAM was enough to put men on the moon in 1969. Sometimes the firmware was specific to production batches and hardware variations meaning it can't be copied from one machine to another unless it was produced in the same production run necessitating libraries of firmwares.

In order to make this least objectionable this should not include works of art except those integral to operation, movies, video games, video game consoles, video game media, ballistic missile guidance systems, whole reproductions, John Deer tractors or any relevant stakeholder who might be opposed to this. This should only apply to those with no stake in protecting their IP interests other than vexatious litigation. Protections should be extended to support the maintenance of appliances and vehicles. In particular, production of electronic domestic knitting machines by Passap and Brother ceased in the 1990s and parts support completely stopped in the 00's. If the memory is corrupted the entire appliance is lost. In some circumstances software companies worked with hardware manufacturers to develop control interfaces requiring an update that was only performed by authorized repairers who are now either dead or retiring. Those companies and copyright holders might still offer such files but not at the level of repairers as electronics IP generally involves multi-million dollar deposits to guarantee NDAs prior to even discussing it.

New community developed control systems such as the AYAB project are being developed but in the grey area of reverse engineering. Such efforts should be protected from litigation.

manufacturers who cease accessible dissemination or distribution of compiled binary firmware for orphan appliances should be denied legal recourse in order to ensure that the activities of distributing, reverse engineering and utilizing the IP for repairs is unambiguously lawful, reasonable and necessary.