

Thesis Portfolio

Phone-To-Car FM Transmitter
(Technical Report)

Engineering and Existentialism
(STS Research Paper)

An Undergraduate Thesis

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Sociotechnical Synthesis

The technical capstone project sought to create a short range FM transmitter for taking a generic analog audio source, such as the auxiliary port on a phone, and transmitting it so nearby FM receivers could play it. It scans through the open FM channels to find an open band (one with low noise).

The STS thesis refutes antitechnologist arguments and discusses the existential joy that lies at the heart of engineering, finding that the act of engineering in and of itself is a creative and authentic one, unfettered by tenuous notions of “improving society.”

The main connection here is that my capstone project was not particularly novel, but in the creation of something authenticity was exercised. The device does not offer a means to improve society, but was nonetheless thoroughly satisfying to realize. Typically, the mind goes to art when thinking of creative expression, but I believe any means by which we bring about something by our own effort is existential praxis. Whether this be in the professional or hobbyist domains, engineering has an intrinsically satisfying nature. This is no surprise, considering the creation of tools and devices is literally as old as humanity itself. To engineer is human, and the antitechnologists who vehemently oppose the increasing technologization of the world (these arguments of course have merit in certain specific cases) are thus denying the creative yearnings of humanity itself. As Samuel Florman poetically puts it, “we have an irresistible urge to dip our hands into the stuff of the earth and to do something with it.” (Florman, 1976)