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Computational Analysis of ECGs KEVIN WATERS, Indiana State University — Electrocardiogram is among the most powerful methods at present to diagnose heart conditions. Here we employed Fourier transform to analyze Electrocardiograms. The goal of the project is to find a way to isolate different wave signals in ways that today's technology is not capable of. Our focus was on building on a code that is capable of filtering out P, QRS, T waves and noise from the ECG, so we created frequency filters that omitted selected amount of data. We first deconstructed and then constructed the ECG this way to find an optimal code assembly for each ECG wave (P-wave, QRS-wave, T-wave). By focusing on one patient, we succeeded to disentangle the complicated ECG signal. We plan to extend this method to more patients.

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