Devinatz, Hopkins, and Smith tell us that certain types of finite spectra possess non-nilpotent self-maps known as $v_n$-maps. The most useful such spectra-map pairs have spectra with few cells and a $v_n$-map with a low power. Though the search for $v_n$-maps has been underway since the early 1980s, few concrete examples are known, and they often fail to satisfy one of the smallness conditions described above. Palmieri and Sadofsky describe an iterative algebraic algorithm to produce new examples of $v_n$-maps from related maps called $u_t$-maps. We describe the progress made in implementing this algorithm at the prime $p = 2$, including non-examples for low powers of $v_2$. (Received September 21, 2018)