Higher order self-force effects CHAD GALLEY, University of Maryland — We present recent progress towards understanding the impact and role of higher order self-force corrections on physically relevant quantities in extreme mass ratio inspirals. As an example, we study the motion of a scalar charge interacting with a nonlinear scalar field (that is motivated from general relativity) in a background black hole spacetime. We use the effective field theory (EFT) approach to perturbatively calculate the self-forced motion of the body and the wave generation through second order in the expansion parameter. Also, by including all particle-field interactions consistent with the symmetries of the theory we use the EFT approach to study the effects due to the finite but small size of the body.