An equivariant infinite loop space machine should turn categorical or algebraic data into genuine $G$-spectra. While infinite loop space machines have been a crucial part of homotopy theory for decades, equivariant versions are in early stages of development. I will describe joint work with A. Osorno in which we build an equivariant infinite loop space machine that starts with diagrams of categories on the Burnside category and produces a genuine $G$-spectrum via the work of Guillou–May. This machine readily applies to produce Eilenberg–MacLane spectra for Mackey functors and topological $K$-theory. (Received September 16, 2013)