The goal of the Electro-Mechanical Continuously Variable Transmission project is to develop a system that can electro-mechanically shift the GX9 CVT on the Aztec Baja Racing car. On its own, the GX9 CVT experiences shift delay from high to low ratios. The team designed an electro mechanical transmission assist component (EMTAC) which is capable of influencing CVT ratio through belt tension. A stepper motor and power screw are used to linearly actuate a pulley, allowing belt tension to be adjusted. The system is controlled electronically and utilizes hall effect sensor input.