One of the variables measuring grain drying process is temperature and humidity. Grain drying done to reduce the water content of 25% -27% to 14% so it can be stored longer and produce good quality rice. In general, farmers are still using natural drying which is less efficient way, so in this final design humidity control in drying process of grain-based microcontroller. In this artificial drying of heat transfer by forced convection is assumed to occur. Using the HSM-20G sensor which outputs a voltage signal is fed to the conditioning, then use the ATMEGA microcontroller 8535 microcontroller programmed to adjust the percentage of signal issue of opening damper on the blower with DC motor and proportionately adjust the on-off heater. With this artificial drying on grain moisture is expected in accordance with ideal conditions (14%) with a short.

Keywords: grain drying, sensor HSM-20G, Atmega8535