In this project, the purpose was to find out if rats have a tendency to chew on certain types of electrical wire. My hypothesis is that rats will chew on grey telephone wire more than red fire alarm wire, yellow speaker wire, white romex wire, blue “category 5” wire, or black coaxial wire. First, I acquired two domestic rats from a local breeder, and pet supplies to care for them. Then I cut 10 cm sections of each wire type and placed them into the rat cage. I left the six different types of wire in the rat’s cage for one week. I then removed the wires and inspected them for damage, estimating the percent of damage for every millimeter along the length of wire. I then averaged the amount of damage, and graphed this using a bar graph. My results showed that the rats tended to chew on the red fire alarm wire the most, followed by the yellow speaker wire, the white romex, the grey telephone, the blue “category 5” wire and finally the black coaxial wire. My conclusion is that if you suspect that you have a rodent infestation, you should take extra precaution to protect your fire alarm wires.