Background. Loss of teeth can affect chewing function, therefore the tooth should be immediately replaced with denture. One type of denture is a Bridge. Bridge is intended to restore the reduced power chewable because the loss of one or more teeth. Need to do research on the denture chewing replace the reduced power due to the loss of one or more teeth. The greater the bite force bridge or close to strength of teeth, the denture can be said to be effective bridge to replace the teeth are missing. Purpose. To know the difference bite force of teeth and denture bridge three units with AT-89S91 microcontroller that had been treated at the clinic Prostodontia Faculty of Dentistry Airlangga University. Methods. This study used 2 groups of samples, at 18 the same person. The first group is in a normal tooth is measured three times using the AT-89S81 microcontroller to feel pain and then look average. Then the second group are the same person's user denture bridge three units of measurement three times using the AT-89S81 microcontroller to feel pain and then look average. Result. The result was analyzed statistically using paired t-test with level of significance of 0.05. The result showed that the mean normal teeth 0.5% for the first group is 8.45 kg; and for the second group is 6.37 kg. This showed that there is significant differences between 2 group with $p < 0.05$. Conclusion. Bite force of teeth is larger than bite force of bridge with the effectiveness of 75.49%.

Keyword: Bite Force, Bridge, AT-89S91 microcontroller