

7. TOPICS FOR FUTURE RESEARCH

This study left some questions unanswered. The plates that were used in this study weigh from 5Lbs to 92Lbs while, in the heavy part assembly industry, a part' weight could be up to a few tons or more. Further studies will be designed to identify the humans' performances in performing assembly tasks at higher weight.

In addition, this research introduced a way to increase the flexibility of an overhead crane by adding a spring between the hook and the gripper. However, this method could cause a parasitic oscillation of the hook, which increases the assembly time. The parasitic oscillation could be diminished by implementing the overhead crane in different ways such as using a lighter hook or using elastic cable instead of adding a spring. Further studies will be designed to investigate this problem.