## **ABSTRACT**

CV. Gradient is a company that manufactures shockbreaker parts on motorbikes which will be distributed again to be assembled into motorbikes. To produce these spare parts, CV. Gradient uses a plastic injection machine. This study uses data on plastic injection machine damage which has the highest frequency of 105 tons plastic injection machines with 39 times the amount of damage in 2016-2018. Based on the results of the life cycle cost calculation, the optimum cost for a plastic injection machine is Rp899.444.034 with an engine life of 5 years and the number of maintenance crew is 1 person.

Keywords: Maintenance, Plastic Injection Machine, Life Cycle Cost, Age Machine, Maintenance Crew.