I. INTRODUCTION

The rabbit farming industry plays one of the important roles in supporting food security and the economy in Indonesia. Animal husbandry cannot be separated from the concept of the “golden triangle”, namely breeding, feeding, and management [1]. However, the management of rabbit farm animals (that is included in the management scope) is still faced with various challenges, one of which is the difficulty in detecting rabbit activity in real-time. Rabbit activity needs to be monitored because certain movement patterns can give an indication of the condition and needs of the animal, for example when the rabbit is in a productive period or requires more attention before reaching a point where it feels stressed [2].

Existing monitoring methods, such as the installation of CCTV and GPS sensors, are generally used to detect the presence of animals or as a security measure [3][4]. However, these methods are not able to provide in-depth data related to animal activity. This limitation makes it difficult for farmers to understand the behavior and condition of rabbits more thoroughly, potentially increasing errors in farm management [5].

Internet of Things (IoT)-based systems provide new opportunities in rabbit farm management. With IoT, data generated from sensors can be analyzed to provide more detailed information about animal activity [6]. The method used in this analysis is Classification Tree (CT), which is able to process animal data activity to classify certain activities based on sensor measurements [7][8].

The application of CT in an IoT system for rabbit activity monitoring and detection can be the next step to help farmers better understand rabbit activity patterns. Classification Tree analysis offers clear decision rules and visual representation of the decision-making process, making it a reasonable approach for categorizing complex rabbit behaviors. Analysis of activity data allows farmers to gain deeper insights into rabbit behavior, such as eating, resting, or movement activities that are relevant to farm management [9]. Thus, this system is expected to support better decision-making in rabbit farm management.