

## Abstract

In the process of educating children, it will most likely be successful if the children have the motivation in learning. To do so, an interesting presentation method is needed in learning. Therefore, a true-false software game is needed to bring a new learning environment for children. The true-false game is normally used to test the children's exploration skills, and to raise their learning cognitive. Nowadays, the true-false game is not only used in everyday learning environment, but it has been implemented into smartphone games. Although this game has been widely used, it only focused on raising the cognitive value of the children. Therefore, this software isn't fully effective and efficient to raise the intrinsic motivation of children. According to this study, the solution is to create an interactive software for the true-false game integrated with Internet of Things. This software is expected to make children interact directly with other users, and to train motoric sense of children. The software uses a microcontroller as an input system and an actuator as an output system. The actuator will be placed in two places, the true and the false. The actuator will receive an input from a given statement, then children will have to choose between the two statements as their correct answer. This is to help children train their interaction skills and motoric sense. This experiment is concluded not only to raise children's cognitive values, it also improves social interaction skills and trains motoric sense of children, therefore making the learning process more fun and interesting, also motivating children's intrinsic values.