Optimal scheduling of polymer battery assembly lines

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The main objective of this study is to optimize the production scheduling of the polymer battery assembly lines. The products from the target process have many advantages over those from the traditional process. The target process differs from the traditional one in that it consists of several tasks which are connected with each other organically. This characteristic requires new challenge for production scheduling. The productivity of this process can be determined by various factors including the daily amount of materials processed in each task. In this study, the target assembly lines are formulated as a mathematical model and optimization technique is used to maximize the productivity. The case studies from the real polymer battery assembly lines show the effectiveness of the proposed model.