

# Design and Development of Tomato Sorting Machine

**Mr. Vitthal K. Khemnari<sup>1</sup>, Mr. Tushar B. Gatkali<sup>2</sup>, Mr. Aditya N. Kedar<sup>3</sup>,  
Mr. Vidyas P. Ugale<sup>4</sup>, Mr. Siddhesh D. Borhade<sup>5</sup>**

Research Scholar at North Maharashtra University, Jalgaon, Maharashtra, India<sup>1</sup>

Assistant Professor, Department of Mechanical Engineering<sup>1</sup>

Students, Department of Mechanical Engineering<sup>2,3,4,5</sup>

Sir Visvesvaraya Institute of Technology (SVIT), Nashik, Maharashtra, India

**Abstract:** *This paper is intended to discuss the design of tomato sorting machine. Tomato Sorting Machine (TSM) is a machine used to effectively sort the tomatoes on Size based sorting. This machine can be used for the agricultural purpose and it can be also employed in the food industries. TSM will sort the tomatoes in three grades based on their size i.e. Small, Medium and Large. TSM works on belt and pulley arrangement. Tomatoes are fed through feeding tray into the machine. Grading of agricultural produce especially the vegetables has become a prerequisite of trading across borders. In India mostly vegetables growers grade the vegetables manually. Manual grading was carried out by trained operators who considered a number of grading factors and vegetables were separated according to their physical quality. Manually grading was costly and grading operation was affected due to shortage of labour in peak seasons. Human operations may be inconsistent, less efficient and time consuming.*

**Keywords:** Belt and pulley arrangement, Tomatoes, size based sorting, belts and frame

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