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DESIGN AND DEVELOPMENT OF AUTOMATIC LEMONADE JUICE MAKING MACHINE

RUSHIKESH TYARAL,

MAHESH DAHALE,

ARUM INGOLE,

MANIK GHODAKE,

SATISH DULANGE,
Department of Mechanical Engineering, Solapur University, WIT Solapur, India.

ABSTRACT
There is dearth of research in the area of hygienic juice and automatic juice making machine especially lemonade. This research paper describes the working of lemonade juicer machine which provides lemonade juice by automation. The lemonade juice is one of the traditional beverages mostly used in all seasons but with more gravity in the summer days. Lemonade juice is generally taken by all age people for relaxation and relief in hot days. Lemonade is
also having the properties of an anti-dehydrating agent which is very much useful. Lemonade is a household beverage. When we consume the lemonade juice any outside source such as from a street shop it is found that the lemonade making technique is unhygienic and which leads to diseases. In the existing lemonade making technique following drawbacks is seen such as high investment cost, the contamination, additional manpower, environmental impact, time consumption and hygiene issues. The traditional method of lemonade juicer making machine requires jars, mixing arrangement, manpower and more time. The existing juicer machines are only limited to extracting the juice from a fruit such as orange, lemon etc. This research paper describes the design of automatic lemonade juicer machine to overcome the listed problems. The setup includes the hopper, four roller lemon squeezing mechanism, Arduino for automation and motor.

KEY WORDS— Lemonade juice, Automation, Arduino, Four Roller Squeezing Mechanism.