

# Nano Mat 2021: Designs and Builds Conveying Systems - Ahmed Abdelrahim Mohamed Mohamedkhair, Sudan

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## Abstract

This research aims of this project in accordance with the government's agricultural policy of the increasing food production and diversification of the present farming system. So as to achieve sustainable food security, producing system that can achieve sorting and packing with high precision and low human errors with time gaining. Utilize this project to develop sorting and packing system by using RGB sensor and motors to do the process of distinguishing the materials.

This research project seeks to achieve design a set of belt Structures for Materials movement, place the RGB box Containers in their sub-belts, Implement RGB Sensor to detect materials Color, Implement IR Sensor to detect the presence of objects, use a solenoid actuators for packing operation, code a solenoid actuators for packing operation and assemble and test the sorting and packing system.

After the screening process of sorting and packing he found the system that performs it is function in high precision a red object is placed in the main belt while the system is running; the object stopped in front of the IR sensor so the belt movement slow down and the RGB sensor detects the color of the object. After refrying the color "witch is Red" the belt the last belt have an IR sensor that is attached on it to count the number of the objects when having 3 objects it goes directly to the packing boxes.

## Biography

Ahmed Mohamed is an Engineer who received her B.Sc. in Mechanical and Electrical Engineering at Future University. His work experience at Smart-Code Commercial Services Foundation (Riyadh - Saudi Arabia) includes development and upgrade of the Jeddah SCADA System From Topkapi to Wonderware, development and upgrade of the Riyadh SCADA System From Topkapi to Wonderware and supply and installation of a reliable and smart water meter.

**Bottom Note:** This work is partly presented at 32nd European Congress on Nanotechnology and Materials Engineering July 26-27, 2021 | Amsterdam, Netherlands

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