SORT DISCORD FOR ONLINE MEETNGS

Meeting minutes 26/10/2022

In attendance:

James

Saad

Dom

John

Looking at gripper options today to prepare the mechanical engineers concept analysis.

James printed a crude version of the gripper from the files online.

Looking at splitting the gripper down the middle on each side with a gap of roughly 100mm to be able to grip a single through hole resistor.

John suggested a gripper which will measure the resistors in situ and then picked up using an electromagnet for sorting. The electromagnet should be sufficient for picking up a single resistor but not attracting the adjacent resistors ahead of their line the “sorting queue”.

EN3 mild steel, roughly 3CM for the DIY electro-magnet.

Need force of 267mg or 0.267g

What we need to do:

Dom: Design two different gripper methods and put diagrams on github, number the designs, make a list of all the things we need to do

John: Design two different gripper methods and put diagrams on github, put maths on github

Saad: Design two different gripper methods and put diagrams on github, kinematics maths

James: Electromagnet and/or Arduino measure of voltage divider. Also looking at the following platform options:

Started thinking about possible embedded control systems for the project:  
 Raspberry Pi Pico

Arduino

ESP32

Raspberry Pi

Cyclone III FPGA (using de0 board)