Recommendation document

By Mini-FLUFFY team 21-06-2024



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This short document outlines recommendations the Mini-Fluffy group would like to pass on to the following group. These can include hardware issues and other use cases.

Hardware issues:

Initially when working on the Mini-Fluffy, there were 3 linear actuators on the system. 2 of them were functional, as they were lifting the pallets when they arrive at the station. Due to some unknown issue, the actuators get raised but never lower. We have tried almost everything. For the time being, we have turned the variable to false, and then brute forced the linear actuators down. At this moment none of the linear actuators are functional. Only the solenoids on their respective stations.

Another thing is one of the transfer units. One of them lowers the pallets smoothly on the other belt. The other gets a bit stuck up when it's in this lowering state. This is not a big issue, as the pallet is still put on the other conveyor system. To summarize, one lowers the pallets smoothly, the other attempts to do this but drops the pallet till the last second on the belt.

Use cases:

Currently the system is not logging data from the HMI. It also does not save this data in some form of database, for example where a specific pallet was last. This is more of an ICT problem, but we think it deserves an honourable mention.

A start position for the pallets would also be useful. At this moment the pallet is just placed randomly on the belt on the running system. We recommend right before the conveyor belt begins just before the transfer units.