

Work Name



Pre-vac Automatic Tool Return

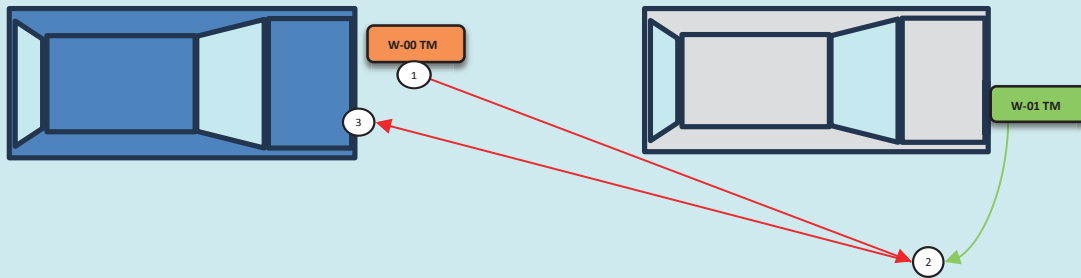


Work Outline

Reduce Mura, Muda, and Muri by Eliminating Walk Time

Before Kaizen

The pre-vac process takes longer than tac time. ① starts at CH2 W-00 and ends halfway into CH W-01. The TM in W-00 would have to walk to ② CH W-01 to get the pre-vac tool and ③ return to the beginning of the CH W-00 for every Sequoia. The TM at W-01 would leave the tool lineside once the process was complete. ②



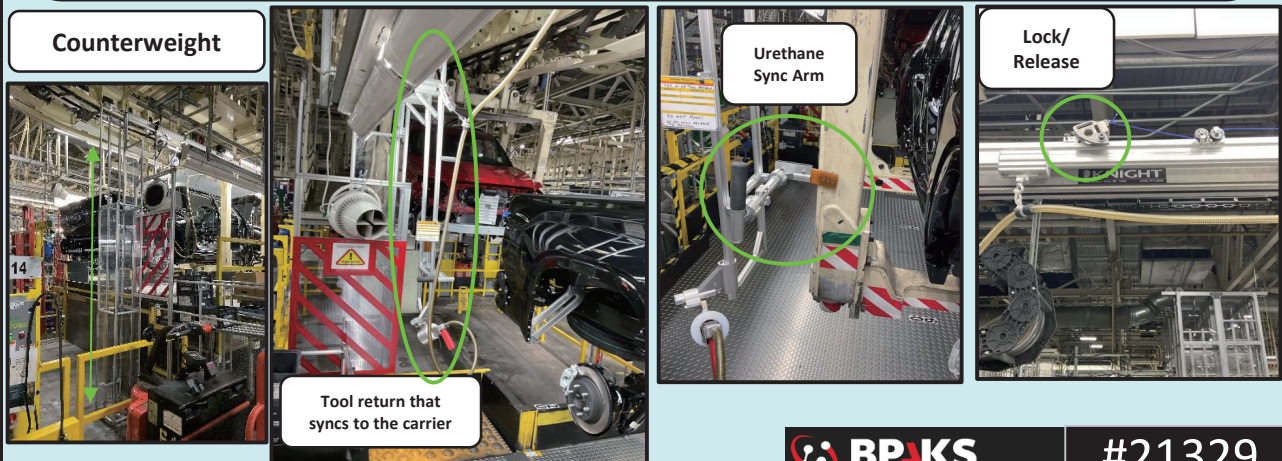
Before Kaizen

- *TM's would have to retrieve the tool every 6 vehicles (Sequoias only) adding seven seconds of walk time. ~ Periodic work ... "Mura"
- *Walk time to retrieve the tool ~ No added value ... "Muda"
- *Over tac time causes TM to struggle to keep up ~ Overburden to TM ... "Muri"

Power source	Gravity
Power transfer mechanism	Thread, String, Stick, Woods, Iron

After Kaizen

Jason Schell made a drop-down arm that syncs to the carrier. As the carrier moves forward, it lifts a counterweight, charging the energy needed for the return. For safety, he made a lock on the overhead rail, so that the tool return will not come back until the TM in W-00 releases the lock. This is to make sure that the TM will not get caught off guard. The sync arm is also made with a urethane pad that will release itself at a certain point to make sure the tool return can breakaway, should the TM at W-01 not release it in



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After Kaizen

- *7 seconds walk time removed from periodic work ~ Mura reduction
- *TMs no longer have to walk outside of their process to retrieve the tool ~ Muda reduction
- *TMs are now able to build in tac time without struggling. ~ Muri eliminated