

WHAT MR. POTATO HEAD HAS TO SAY ABOUT PROCESS IMPROVEMENT

GOAL: Quickly and accurately put together Mr. Potato Head so he matches the picture provided. This should be a fun and effective 30 minute activity to teach teams how to do small scale, rapid testing of ideas and measurement to improve process. Important lessons quickly emerge about making predictions, building knowledge through testing, developing procedures, and the influence of competition.

Caroline Slain
The designer of our
Mr. Potato Head



INSTRUCTIONS

1

DIVIDE INTO TEAMS OF TWO OR MORE PEOPLE:

- Assign one person to be the “Contractor” who will put together Mr. Potato Head as fast as possible
- Assign one person to be the “Timer” who will use their phone as a timer
- Assign one person to be “Quality Control” who will do quality control (if you don't have enough people then the timer also does quality control)

2

INSTRUCT PARTICIPANTS:

- You might not use all pieces
 - If pieces aren't used, they stay inside the spud!
- You want your finished product to look exactly like picture when done (hand out copies of page 3 of this packet.)
- When ready, have the Timer start the clock and the Contractor put together Mr. Potato Head as fast as possible
- After each round, have Quality Control inspect the work for flaws and note the time and number of flaws (out of 10), use the provided worksheet on page 4 of the packet.
- Repeat this process 3-5x in an attempt for the Contractor to better their time and quality scores
- Switch Contractors if desired
- Between trials, discuss what you're going to do this time around to be better with whoever you want.



3

DEBRIEF:

- a. **Test vs. Talk** – Teams frequently spend too much time planning and not enough time testing and learning. Testing leads to learning that facilitates future tests and improvement. Testing reveals considerations that cannot be predicted.
- b. **Time vs. Accuracy** – Teams may see accuracy scores dip as they pursue increasing speed. Measuring two quality characteristics enables achieving both an aim of improved time and reliable accuracy.
- c. **Competition** – While competition between teams is not introduced in the aim, teams frequently become competitive and challenge winning teams and times that are significantly better than others. Note the competition that emerges and inquire if it is helpful for improvement work.
- d. **Collaboration** – It's very common for teams to never think to visit another team to learn ideas and share knowledge. Ask why no one visited another team and highlight the missed opportunity.
- e. **Documentation** – Ask how much time it took to complete the quality control conversation and worksheet for each test. Note that documenting improvement does not need to be a burden.
- f. **Testing Considerations** – Teams will often ask about several testing considerations including switching contractors, changing test ideas versus iterative testing on a single idea, individual versus team approaches, and standard work. Each option offers a chance to discuss various considerations of testing.
- g. **Bottlenecks** – Most teams encounter the bottleneck of pieces getting stuck in Mr. Potato Head, most commonly the “Hat Bottleneck.” Ask how teams accommodated for these bottlenecks!

YOUR MR. POTATO HEAD REFERENCE GUIDE

EYES

HAT

EARS

NOSE

LEFT
ARM

RIGHT
ARM

MOUTH

MOUSTACHE

HATCH
(NOT PICTURED)

FEET

YOUR MR. POTATO HEAD TRIAL WORKSHEET

Your team should improve Trial over Trial. The goal is 10/10 on quality control with as low of a time as possible. A perfect score of 10/10 in 30s would be considered excellent (and, yes this is the fastest it has ever been done!)

ITEM	NOTES	SAMPLE	TRIAL 1	TRIAL 2	TRIAL 3	TRIAL 4
HAT	Right direction, forehead size	1				
EYES	Right side up	0				
EARS	Not backwards, in right holes	1				
NOSE		1				
MOUSTACHE	In the right slot?	1				
MOUTH		1				
FEET	Too far forward/back?	1				
LEFT ARM	Proper hole? Proper height?	0				
RIGHT ARM	Proper hole? Proper height?	1				
HATCH	Attached properly?	0				
QC	# THAT PASS QC (/10)	7				
TIME	TIME (MM:SS)	01:32				