











Appendix A: The Basic MOST using the parameter sequence model on wire bond workstation

Sub operation	Parameter and value	TMU	Min
Walk 154 steps to wire bond process	A <sub>270</sub> B <sub>0</sub> G <sub>0</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> A <sub>270</sub>	5400	3.24
Get personal protective equipment and put it on	A <sub>16</sub> B <sub>0</sub> G <sub>0</sub> M <sub>15</sub> X <sub>0</sub> I <sub>10</sub> A <sub>0</sub>	410	0.246
Walk 10 steps to the supervisor's area for a briefing	A <sub>16</sub> B <sub>0</sub> G <sub>0</sub> M <sub>1</sub> X <sub>1800</sub> I <sub>0</sub> A <sub>16</sub>	18330	10.998
Get machine hours sheet and walk 10 steps to the information board	A <sub>16</sub> B <sub>0</sub> G <sub>0</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> A <sub>16</sub>	320	0.192
Update daily information based on machine hours	A <sub>3</sub> B <sub>0</sub> G <sub>1</sub> A <sub>3</sub> B <sub>0</sub> P <sub>1</sub> R <sub>16</sub> A <sub>1</sub> B <sub>0</sub> P <sub>1</sub> A <sub>6</sub>	320	0.192
Get schedule and walk 10 steps to before cure area.	A <sub>16</sub> B <sub>0</sub> G <sub>1</sub> A <sub>3</sub> B <sub>3</sub> P <sub>6</sub> T <sub>1</sub> A <sub>0</sub> B <sub>0</sub> P <sub>6</sub> A <sub>16</sub>	490	0.294
Get a new lot and walk 7 steps to machine using the trolley	A <sub>16</sub> B <sub>3</sub> G <sub>3</sub> M <sub>1</sub> X <sub>3</sub> I <sub>1</sub>	270	0.162
Walk 5 steps into the machine	A <sub>10</sub> B <sub>0</sub> G <sub>3</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> A <sub>0</sub>	130	0.078
Transfer the lot into rack awaiting	A <sub>6</sub> B <sub>0</sub> G <sub>3</sub> A <sub>1</sub> B <sub>0</sub> P <sub>6</sub> A <sub>1</sub>	170	0.102
Put the magazine in each section	A <sub>0</sub> B <sub>0</sub> G <sub>0</sub> A <sub>0</sub> B <sub>0</sub> P <sub>3</sub> A <sub>0</sub>	30	0.018
Clip the lot traveler in wire bond machine	A <sub>1</sub> B <sub>0</sub> G <sub>3</sub> A <sub>0</sub> B <sub>0</sub> P <sub>3</sub> A <sub>6</sub>	130	0.078
Press the button, the machine starts to run the wire bond machine	A <sub>3</sub> B <sub>0</sub> G <sub>0</sub> M <sub>1</sub> X <sub>3</sub> I <sub>1</sub> A <sub>1</sub>	90	0.054
Checking the condition of gold wire (Machine running)	A <sub>1</sub> B <sub>0</sub> G <sub>0</sub> A <sub>1</sub> B <sub>3</sub> P <sub>3</sub> T <sub>1</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> A <sub>3</sub>	120	0.072
Walk 4 steps into the wire bond machine	A <sub>6</sub> B <sub>0</sub> G <sub>3</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> A <sub>6</sub>	150	0.09
Arrange the output beside the machine	A <sub>3</sub> B <sub>0</sub> G <sub>3</sub> A <sub>3</sub> B <sub>3</sub> P <sub>6</sub> A <sub>3</sub>	210	0.126
Check the condition of the machine	A <sub>6</sub> B <sub>0</sub> G <sub>0</sub> M <sub>1</sub> X <sub>1</sub> I <sub>0</sub> A <sub>0</sub>	80	0.048
Adjust or set the position of gold wire	A <sub>1</sub> B <sub>0</sub> G <sub>1</sub> A <sub>1</sub> B <sub>0</sub> P <sub>1</sub> C <sub>16</sub> A <sub>1</sub> B <sub>0</sub> P <sub>10</sub>	130	0.078
Connect the 90 degree end of point to the middle part	A <sub>1</sub> B <sub>0</sub> G <sub>0</sub> M <sub>1</sub> X <sub>0</sub> I <sub>0</sub> A <sub>0</sub>	20	0.012
Walk 17 steps to MES with bringing the lot	A <sub>32</sub> B <sub>3</sub> G <sub>3</sub> A <sub>0</sub> B <sub>3</sub> P <sub>6</sub> A <sub>6</sub>	470	0.282
Get 5S checklist from the storage compartment	A <sub>0</sub> B <sub>0</sub> G <sub>0</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> R <sub>10</sub> A <sub>1</sub> B <sub>0</sub> P <sub>1</sub> A <sub>0</sub>	120	0.072
Walk 10 steps to wire area and check on all items regarded on the checklist	A <sub>16</sub> B <sub>0</sub> G <sub>0</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> R <sub>10</sub> A <sub>1</sub> B <sub>0</sub> P <sub>1</sub> A <sub>0</sub>	280	0.1608
Walk 4 steps to wire bond machine in QA table and get a checklist from upper holder	A <sub>6</sub> B <sub>0</sub> G <sub>0</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> T <sub>1</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> A <sub>6</sub>	130	0.198
Check and tick all items as per checklists	A <sub>0</sub> B <sub>0</sub> G <sub>0</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> R <sub>10</sub> A <sub>1</sub> B <sub>3</sub> P <sub>0</sub> A <sub>0</sub>	140	0.084
Sign on checklist, and place checklist back to document holder	A <sub>1</sub> B <sub>0</sub> G <sub>3</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> R <sub>10</sub> A <sub>0</sub> B <sub>0</sub> P <sub>0</sub> A <sub>0</sub>	140	0.066
	<b>TOTAL</b>	<b>28350</b>	<b>17.01</b>