

**DMF/ A
report****FREE****Mould****3D Design****Product Inspection
Standard Setting**

Free Product Inspection Standard Setting:
In addition to the usual quantification of product physical properties and appearance standards, we will add REACH, RoHS, FDA, CA-65, or CFC Free to the standards according to customer needs.

Free Mould Opening:
Large order quantity with mould cost free.

Free 3D Design:
Finehope help customer design the desired product or modify the design for free.

Free DFM/A Report:
Finehope will show details and solutions of manufacturability and assemblability through PPT to help customers reduce trouble.



此項產品係由本公司自行研發，其外觀、顏色、形狀、尺寸、重量、材質、功能、用途、性能、特點、優點、缺點、注意事項、使用說明、保養方法、維修方法、安全警告、其他說明等，均與本公司之產品無異。

產品名稱：自行車安全帽

規格：M, L, XL, 可調節

顏色：紅色/黑色

重量：180-300 公克 / 約 3

材質：ABS 塑料

功能：保護頭部，防止碰撞，具有通風孔，可調節鬆緊度

用途：自行車運動，戶外活動

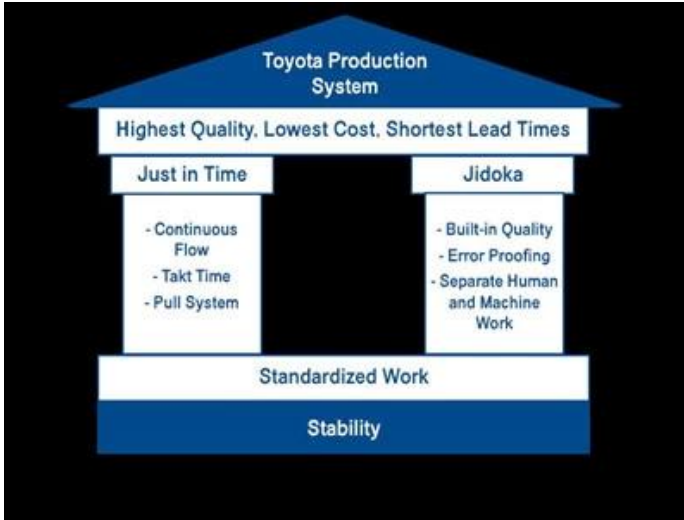
安全警告：請正確佩戴，不可作為裝飾品使用

其他說明：請參閱說明書

包裝數量：50

認證：RoHS, CE, EN71-3, CA65

其他：可水洗，可重複使用



Toyota Production System (TPS) is a manufacturing system that aims to achieve the highest quality, lowest cost, and shortest lead times. It is based on the principles of Just in Time (JIT) and Jidoka. JIT focuses on continuous flow, takt time, and a pull system. Jidoka focuses on built-in quality, error proofing, and separating human and machine work. These principles are supported by standardized work and stability.

The S.M.A.R.T. goal formula is a framework for setting effective goals. It consists of five criteria: Specific, Measurable, Attainable, Relevant, and Time-bound. Each criterion provides a clear guideline for how to define a goal that is achievable and meaningful.

Famous customer

Cooperation experience

Engineering Vehicle	Medical Equipment
Baby Supplies	Fitness Equipment Other

1. What are the main goals of the project?

1. The main goals of the project are to improve the quality of the product, reduce the cost, and shorten the lead time. These goals are achieved by implementing the Toyota Production System (TPS) and the S.M.A.R.T. goal formula.

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About us







Our Certification



公司荣获 2019-2020 年度 厦门市成长型中小微企业

公司于 2019 年 12 月 11 日荣获 2019-2020 年度 厦门市成长型中小微企业 称号。该称号是厦门市工业和信息化局根据《厦门市成长型中小微企业认定办法》的规定，对公司进行认定后授予的。这体现了公司在 2019 年度在经营、管理、研发、创新等方面取得的显著成就，以及对厦门市经济发展和产业升级的积极贡献。

公司荣获 2020-2022 年度 厦门市专精特新中小企业

公司于 2020 年 12 月 11 日荣获 2020-2022 年度 厦门市专精特新中小企业 称号。该称号是厦门市工业和信息化局根据《厦门市专精特新中小企业认定办法》的规定，对公司进行认定后授予的。这体现了公司在 2020 年度在专业化、精细化、特色化、新颖化等方面取得的显著成就，以及对厦门市经济发展和产业升级的积极贡献。

公司荣获 2019-2021 年度 厦门市科技小巨人领军企业

公司于 2019 年 12 月 11 日荣获 2019-2021 年度 厦门市科技小巨人领军企业 称号。该称号是厦门市科学技术局根据《厦门市科技小巨人领军企业认定办法》的规定，对公司进行认定后授予的。这体现了公司在 2019 年度在科技创新、成果转化、市场开拓等方面取得的显著成就，以及对厦门市经济发展和产业升级的积极贡献。



2020 年 12 月 31 日 2021 年 12 月 31 日

2020 年 12 月 31 日 2021 年 12 月 31 日

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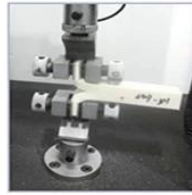
Quality Assurance



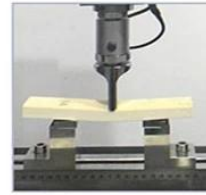
UNIVERSAL TESTING MACHINE(UTM)



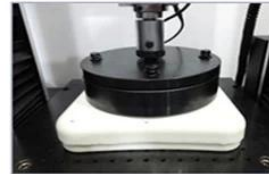
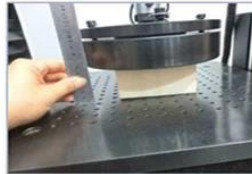
Tensile Test



Tear Resistance Test

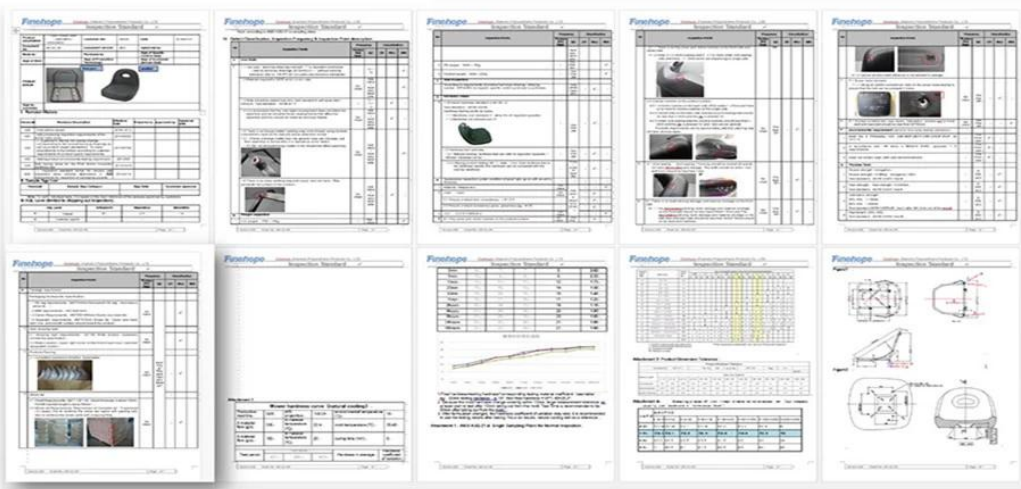


Compressive Strength



Indentation Force Deflection

INSPECTION STANDARD



MATERIAL PERFORMANCE TEST REPORT



Customer			
Location	New Zealand		
Customer Code	G1019		
Risk Assessment			
New:	Site ☐	Technology ☐	Process ☐
Other Risks	☐		

Project			
Finehope Contact	Wendy Yang		
Part No.			
Part Name	G1019Y04		
Change Level/Date			
User Plant(s)	Finehope		

Core Team Members	Company/Title	Phone/Fax/E-Mail
Tiger Xu	G.M.	
Yibin Lim	Vice G.M.	
Cindy Wu	Sales Manager	cindy@finehope.com
Liangquan Wan	Project Manager	
Wendy Yang	Sales	wendy@finehope.com

Build Level	Material Required Date	Quantity	No. Concurrent	
			SRCs	Majors
Product Design and Development	21-Jun-21	10		
Product and Process Validation	25-Jun-21	15		

APQP Deliverable	Finehope APQP Reference Only	G Y R	Project Need Date	Supplier Timing Date	Actual Closure Date	Supplier Lead Resp Initials	Finehope Acceptance Complete	Remarks or Assistance Required
AIAG APQP Phase 2 - Product Design and Development								
1. Project Timeline (Synchronized w/Production Time Plan)	2030	G	20-Jun-21	21-Jun-21	21-Jun-21	22-Jun-21	23-Jun-21	
2. Customer Inputs / Requirements	2030	G	23-Jun-21	24-Jun-21	24-Jun-21	25-Jun-21	26-Jun-21	
3. Warranty & Quality Mitigation Plan	2030	G	24-Jun-21	25-Jun-21	25-Jun-21	26-Jun-21	27-Jun-21	
4. Customer Specific Requirements	2030	G	25-Jun-21	26-Jun-21	26-Jun-21	27-Jun-21	28-Jun-21	
5. Design FMEA	2080	G	26-Jun-21	27-Jun-21	27-Jun-21	28-Jun-21	29-Jun-21	
6. Preliminary Bill of Materials (BOM)	2030	G	27-Jun-21	28-Jun-21	28-Jun-21	29-Jun-21	30-Jun-21	
7. Prototype Control Plans	2110	G	28-Jun-21	29-Jun-21	29-Jun-21	30-Jun-21	1-Jul-21	
8. Prototype Builds	2110	G	29-Jun-21	30-Jun-21	30-Jun-21	1-Jul-21	2-Jul-21	
9. Design Verification Plan & Report (DVP&R)	2120	G	30-Jun-21	1-Jul-21	1-Jul-21	2-Jul-21	3-Jul-21	
10. Design / Process Review	2130	G	1-Jul-21	2-Jul-21	2-Jul-21	3-Jul-21	4-Jul-21	
11. Team Feasibility Commitment	2130	G	2-Jul-21	3-Jul-21	3-Jul-21	4-Jul-21	5-Jul-21	
12. APQP Status Sub-Supplier	2130	G	3-Jul-21	4-Jul-21	4-Jul-21	5-Jul-21	6-Jul-21	
13. Production Drawing & Specifications	2220	G	4-Jul-21	5-Jul-21	5-Jul-21	6-Jul-21	7-Jul-21	
14. Subcontractor Purchase Orders (Customer Tooling)	2220	G	5-Jul-21	6-Jul-21	6-Jul-21	7-Jul-21	8-Jul-21	
15. Facilities, Equipment, Tools and Gages	2260	G	6-Jul-21	7-Jul-21	7-Jul-21	8-Jul-21	9-Jul-21	
AIAG APQP Phase 3 - Process Design and Development								
16. Product/Process and Quality System Review	3030	G	9-Jul-21	10-Jul-21	10-Jul-21	10-Jul-21	11-Jul-21	
17. Manufacturing Process Flow Chart	3040	G	11-Jul-21	12-Jul-21	12-Jul-21	12-Jul-21	13-Jul-21	
18. Process FMEA	3100	G	13-Jul-21	14-Jul-21	14-Jul-21	14-Jul-21	15-Jul-21	
19. Pre-Launch Control Plan	3110	G	15-Jul-21	16-Jul-21	16-Jul-21	16-Jul-21	17-Jul-21	
20. Process Work Instructions	3120	G	17-Jul-21	18-Jul-21	18-Jul-21	18-Jul-21	19-Jul-21	
21. Measurement Systems Evaluation	3130	G	19-Jul-21	20-Jul-21	20-Jul-21	20-Jul-21	21-Jul-21	
22. Packaging Specifications & Approvals	3160	G	21-Jul-21	22-Jul-21	22-Jul-21	22-Jul-21	23-Jul-21	
23. Manufacturing Team Training	3170	G	23-Jul-21	24-Jul-21	24-Jul-21	24-Jul-21	25-Jul-21	
AIAG APQP Phase 4 - Product and Process Validation								
24. Subcontractor PPAP Approval	4005	G	9-Jul-21	10-Jul-21	10-Jul-21	10-Jul-21	11-Jul-21	
25. Production Control Plan	4008	G	11-Jul-21	12-Jul-21	12-Jul-21	12-Jul-21	13-Jul-21	
26. Production Readiness Review (PRR)	4009	G	13-Jul-21	14-Jul-21	14-Jul-21	14-Jul-21	15-Jul-21	
27. Production Trial Run (PTR)	4010	G	15-Jul-21	16-Jul-21	16-Jul-21	16-Jul-21	17-Jul-21	
28. Process Capability Studies	4030	G	17-Jul-21	18-Jul-21	18-Jul-21	18-Jul-21	19-Jul-21	
29. Production Validation Plan & Report (PV&R)	4090	G	19-Jul-21	20-Jul-21	20-Jul-21	20-Jul-21	21-Jul-21	
30. Production Part Approval (PPAP)	4110	G	21-Jul-21	22-Jul-21	22-Jul-21	22-Jul-21	23-Jul-21	
AIAG APQP Phase 5 - Feedback, Assessment and Corrective Action								
31. Initial Production Shipment	5005	G	28-Jul-21	30-Jul-21	30-Jul-21	30-Jul-21	31-Jul-21	
32. Production Ramp-up Plan	5005	G	31-Jul-21	2-Aug-21	2-Aug-21	2-Aug-21	3-Aug-21	
33. Full Production Date	5005	G	5-Aug-21	7-Aug-21	7-Aug-21	7-Aug-21	8-Aug-21	
34. Conduct Lessons Learned	5005	G	8-Aug-21	10-Aug-21	10-Aug-21	10-Aug-21	11-Aug-21	

Design Failure Mode and Effects Analysis

(Design FMEA)

FMEA No.:
DFMEA-001

Page: page 1, totally 3 pages

Made: Xiaodong Qiu

FMEA Date: Nov.10th.2015

Product Name: Injection moulding

Procedure responsible dept: Production Dept

Model year/vehicle types: CRV

Soybean Milk Maker

Important date: Nov.10th.2015

People participated: Develop dept:GaoLin Wei

Sales:Haiyan Wu

PC:Jiannan Yan

Technology Dept:Jianyu Zhou

Purchaser:Yuanyuan Gou

Production dept:Shuwen Dong

QC:Bingxiang Zheng

procedure function requirements	Potential failure mode	Potential effects analysis	severity (S)	grade	potential causes/mechanism of failure	frequency (O)	Current prevention process control	Current detection process control	detection (D)	RPN	recommended measures	Responsibility and target completion date	Action Taken	severity (S)	frequency (O)	difficult to check (D)	RPN
scaphus	size changes of handle	handle cover fall off	6	A	PP size change	6	By adjusting the product of the injection molding process, and measure or test the clasp of product size	measure and test product size	3	108	Add the number of button bit in handle design, in order to keep the connection strength	Xiaodong Qiu 2015/08/25	By adjusting the product of the injection molding process, and measure or test product size	6	1	1	6
scaphus	warping of scaphus handle	Poor appearance break	4	C	high handle wall	6	Add the stiffener to handle wall to prevent deformation	measure and test product size	2	48	If this problem appears, make improvement by adding the stiffener	Xiaodong Qiu 2015/09/30	Add the stiffener to handle wall to prevent deformation	4	2	1	8
scaphus	Deformation of cup-mouth	Micro switch without power	8	A	PP material deformation, Resulting in a perpendicular direction to connect the cup and handle inward deformation, So that both sides of the bit, the micro switch column opposite sink, and	3	Adjust the injection molding process, to prevent extrusion	measure and test cup-mouth size	3	72	in the cup packing control the direction of the lateral dimension of no force, stipulate the way of packing	Xiaodong Qiu 2015/09/10	stipulate the cup packing control the direction of the lateral dimension of no force, stipulate the way of packing	8	1	3	24

H-R-P-001-1

Process Failure Mode and Effects Analysis

(PFMEA)

潜在失效模式和后果分析

FMEA No.FMEA20150325-01

Page 3

Maker:Wenhong-Huang

FMEA Date (Original):2015.03.25

Item:Welding Improvement

Process Responsibilities: Production welding group

Model year/project

Key Dates

Item	Potential failure mode 潜在失效模式	Potential consequences of failure modes 失效模式造成的后果	Severity 严重度	Grade 等级	Potential causes of failure 失效模式的主要原因	Occurrence degree 发生程度	Current process control and prevention 现行过程控制与预防	Current process control detection 现行过程控制检测	Detection rate 检测率	RPN	Suggest measures 建议措施	Responsibility and target completion date 责任人和目标完成日期	Measure results 措施结果	Severity 严重度	Incidence rate 发生率	Detection degree 检测度	RPN
Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题	Request 问题
Clamping (clamping required is in place, no missing or wrong loaded) 紧固（紧固到位，无漏装、错装）	Clamping is not in place 紧固不到位	Welding error, leak, welding deviation, affect the assembly or use function 焊接错误、漏焊、焊接偏差，影响装配使用功能	8	B	● Staff negligence 作业人员疏忽 ● Failure for bad 装配不到位	4	● Make the operation standard book 制定作业指导书 ● Make maintenance standards, regular maintenance 制定保养标准，定期维护、维护	● Visual inspection 目视检查 ● Finished 100% full inspection 完成100%全检	6	144	● Pre-service training of staff 岗前培训 ● Regular maintenance 工前定期维护		6	3	4	72	
	Clamping is not in place 紧固不到位	Welding error, leak, welding deviation, affect the assembly or use function 焊接错误、漏焊、焊接偏差，影响装配使用功能	8	A	● Staff negligence 作业人员疏忽 ● Failure for bad 装配不到位 ● Failure inaccurate 装配位置不准确	4	● Make the operation standard book 制定作业指导书 ● Make maintenance standards, regular maintenance 制定保养标准，定期维护、维护 ● Regular checking of future 定期检查未来	● Visual inspection 目视检查	6	192	● Pre-service training of staff 岗前培训 ● Regular maintenance 定期维护 ● Make inspection checklist for future 制定检查未来清单		8	3	4	96	
	Attachmate missing 附件漏装	Affect product strength or influence the assembly 影响产品强度或影响装配	8	A	● Staff negligence 作业人员疏忽	3	● Make the operation standard book 制定作业指导书	Visual inspection 目视检查	4	96	Final inspection personnel do 100% full inspection for each bead with mark 终检人员100%全检，每道焊缝打点		8	2	2	32	
	Attachmate error 附件错装	Influence assembly 影响装配	7	A	No mistake proofing future 未来无防错	3	● Make the operation standard book 制定作业指导书	Visual inspection 目视检查	6	126	● Increase the mistake proofing devices 增加防错装置 ● Inspection for final inspection tools 终检工具检查		7	2	4	56	
False welding 假焊	Lack of strength, affect the use of function 强度不足，影响使用功能	9	A	Current, voltage, welding angle, speed setting is not reasonable 电流、电压、焊接角度、速度设定不合理	4	● Welding process guidance marking 焊接工艺指导书标识 ● Condition confirmation check 条件确认标识 ● Confirm the failure test on a regular basis 定期开展失效试验	Destructive testing 破坏性试验	8	288	After the procedure is set up to confirm the processing conditions, the execution and marking of the failure test is performed 程序设定加工完毕确认		9	3	4	108		

Production Device

KRAUSS MAFFEI

Finehope has successively introduced many of the world's most advanced German KraussMaffei high-pressure injection machines since 2010.



Reaction Injection Molding (RIM)
High Pressure Machine
KRAUSS MAFFEI
Made in Germany!



Self-invented fully automatic production line

Finehope has independently developed a number of fully automatic P-U injection production lines since 2010. These production lines reduce production costs and meet customer delivery requirements.



Welding Robots



Since 2016, Finehope has continued to purchase welding robots and automatic fixture turntables for welding metal parts. The independent processing of accessories saves the waiting time and procurement cost of outsourcing processing.

CNC Machine

Finehope has continued to purchase CNC equipment since 2016. CNC (Computer Numerically Controlled) machining is a manufacturing process in which pre-programmed computer software dictates the movement of factory tools and machinery. Using this type of machine versus manual machining can result in improved accuracy, increased production speeds, enhanced safety, increased efficiency and most importantly, help customers save costs and improve product quality.



Mould Release Agent Painting Robot



Since 2019, Finehope has purchased robots for spraying water-based release agents to improve the working environment, improve spraying quality and material utilization, and reduce labor costs.

3D printer

Finehope started to purchase 3D printers in 2015. 3D printing can realize rapid proofing of new product prototypes and templates for resin molds, and can also be used for faster and cheaper small batch production.





Social Responsibility

- **Audited by Sedex**

(Supplier business ethics information
exchange)

Labor standard · health and safety · Environmental
protection · Business ethics practice

- **Public-spirited**



Voluntary tree planting after Super Typhoon Meranti in 2016

A VALUE-BASED COMPANY

CUSTOMER FIRST

TEAMWORK

EMBRACE CHANGES

PASSION

INTEGRITY

COMMITMENT