

# TEST REPORT

**Application No.:** SZEM2307004492ET  
**Applicant:** JINJIA TOYS FACTORY  
**Address of Applicant:** Yongxin Industrial Area, Lianshang, Chenghai, Shantou, Guangdong, China 515800

### Equipment Under Test (EUT):

**EUT Name:** INERTIAL CAR

**Model No.:** 666-63P, 666-62P, 666-68P, 666-50P, 666-51P, 666-52P, 666-53P, 666-55P, 666-56P, 666-58P, 666-59P, 666-60P, 666-61P, 666-65P, 666-66P, 666-69P, 666-70P, 666-71P, 666-72P, 666-73P, 666-75P, 666-76P, 666-77P, 666-78P, 666-79P, 666-80P, 666-81P, 666-82P, 666-02Q, 666-18P, 66-19P, 666-18PA, 666-18PB, 666-01QA, 666-22P, 666-23P, 666-28P, 666-29P, 666-60E, 666-61E, 666-62E, 666-63E, 666-65E, 666-60F, 666-61F, 666-62F, 666-63F, 666-65F, 666-62F-1 ♣

♣

Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

**Standard(s) :** EN IEC 55014-1: 2021  
 EN IEC 55014-2: 2021

**Date of Receipt:** 2023-07-10

**Date of Test:** 2023-07-10

**Date of Issue:** 2023-07-14

<b>Test Result:</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

*Keny Xu*

Keny Xu  
 EMC Laboratory Manager



SGS-CSTC Standards Technical Services Co., Ltd.  
 Shenzhen Branch (China) EMC Laboratory

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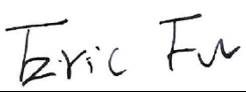
## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/0 Aug01,2022

Report No.: SZEM230700449201

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2023-07-14		Original

Authorized for issue by:				
				
		Foray Chen/Project Engineer		
				
		Eric Fu/Reviewer		



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## 2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Radiated Emissions (30MHz-1GHz)	EN IEC 55014-1: 2021	CISPR 16-2- 3:2016+A1:2019	Table 9	Pass

Immunity Part				
Item	Standard	Method	Requirement	Result
Electrostatic Discharge	EN IEC 55014-2: 2021	EN 61000-4-2:2009	4kV Contact Discharge, 8kV Air Discharge	Pass

### Declaration of EUT Family Grouping:

Model No.: 666-63P, 666-62P, 666-68P, 666-50P, 666-51P, 666-52P, 666-53P, 666-55P, 666-56P, 666-58P, 666-59P, 666-60P, 666-61P, 666-65P, 666-66P, 666-69P, 666-70P, 666-71P, 666-72P, 666-73P, 666-75P, 666-76P, 666-77P, 666-78P, 666-79P, 666-80P, 666-81P, 666-82P, 666-02Q, 666-18P, 66-19P, 666-18PA, 666-18PB, 666-01QA, 666-22P, 666-23P, 666-28P, 666-29P, 666-60E, 666-61E, 666-62E, 666-63E, 666-65E, 666-60F, 666-61F, 666-62F, 666-63F, 666-65F, 666-62F-1

Only the model 666-63P was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference being of color, appearance, packaging and model No.



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	4.5V DC(1.5V x 3 "LR44" button cells)
---------------	---------------------------------------

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
--	--	--	--

The EUT has been tested as an independent unit.

### 4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Radiated Emissions (30MHz-1GHz)	$\pm 6.0\text{dB}$ for 3m; $\pm 5.0\text{dB}$ for 10m
Electrostatic Discharge	$\pm 6\%$

Remark:

The  $U_{\text{lab}}$  (lab Uncertainty) is less than  $U_{\text{CISPR/ETSI}}$  (CISPR/ETSI Uncertainty), so the test results  
 – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;  
 – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.



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## 4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

## 4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

### • A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

### • VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

### • FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

### • Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

## 4.6 Deviation from Standards

None

## 4.7 Abnormalities from Standard Conditions

None

## 4.8 EMS Monitor

Visual: Monitored the light of the EUT

Audio: Monitored the sound of the EUT



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## 5 Equipment List

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2020-07-19	2023-07-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2022-10-20	2023-10-19
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2021-09-17	2023-09-16
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2023-03-20	2024-03-19
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2023-07-07	2024-07-06

Electrostatic Discharge					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
ESD Generator	TESEQ AG	NSG 437	SEM019-02	2023-03-22	2024-03-21

General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2022-09-04	2023-09-03
Humidity/ Temperature Indicator	Anymetre	TH101B	SEM002-09	2022-09-04	2023-09-03
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2023-03-23	2024-03-22



## 6 Emission Test Results

### 6.1 Radiated Emissions (30MHz-1GHz)

Test Requirement: EN IEC 55014-1: 2021

Test Method: CISPR 16-2-3:2016+A1:2019

Measurement Distance: 3m

Limit:

FREQUENCY (MHz)	dBuV/m (At 10m)	dBuV/m (At 3m)
	Class B	Class B
30 ~ 230	30	40
230 ~ 1000	37	47
Detector: Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz		

#### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.1 °C

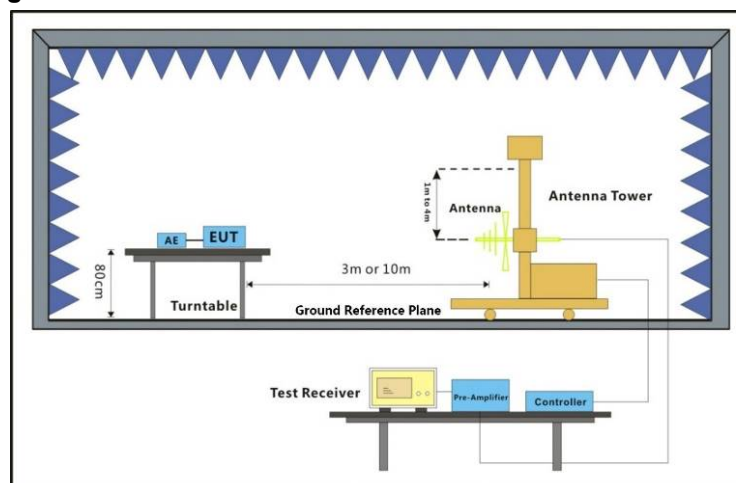
Humidity: 41.2 % RH

Atmospheric Pressure: 1005 mbar

#### 6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	On mode, keep EUT sounding and flashing.

#### 6.1.3 Test Setup Diagram





### 6.1.4 Measurement Procedure and Data

Frequency Range: 30MHz to 1GHz

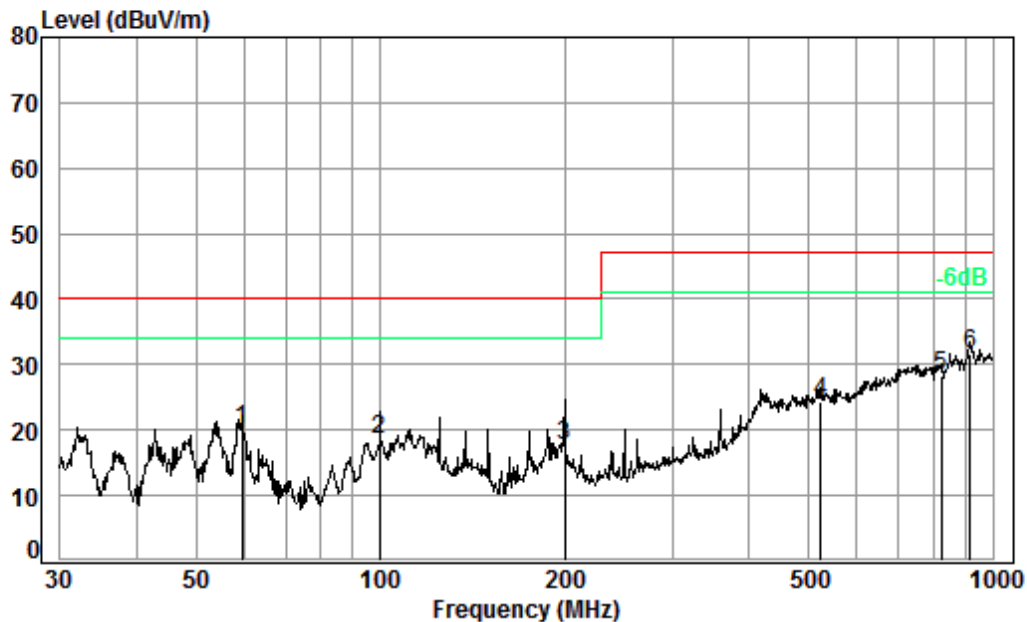
An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

The red line show in graphic is the limit in standard used in this section.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor



Test Mode: 00; Polarity: Horizontal



Condition: 3m HORIZONTAL

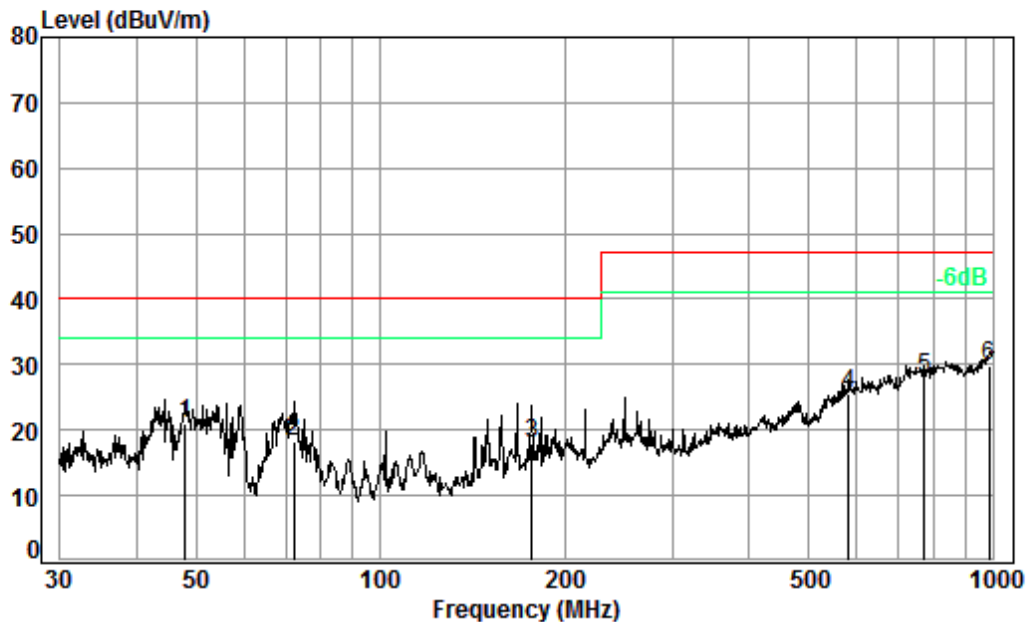
Job No. : 04492ET

Test Mode: 00

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	59.44	0.80	13.25	27.56	33.57	20.06	40.00	-19.94	QP
2	99.88	1.20	13.99	27.51	31.03	18.71	40.00	-21.29	QP
3	199.99	1.40	16.50	27.53	27.41	17.78	40.00	-22.22	QP
4	524.55	2.63	25.13	27.83	24.43	24.36	47.00	-22.64	QP
5	824.60	3.31	28.83	27.33	23.40	28.21	47.00	-18.79	QP
6 pp	919.29	3.62	29.90	27.02	25.04	31.54	47.00	-15.46	QP



Test Mode: 00; Polarity: Vertical



Condition: 3m VERTICAL

Job No. : 04492ET

Test Mode: 00

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	47.99	0.76	14.81	27.61	32.89	20.85	40.00	-19.15	QP
2	72.34	0.87	12.60	27.52	32.42	18.37	40.00	-21.63	QP
3	176.89	1.36	15.84	27.53	28.20	17.87	40.00	-22.13	QP
4	580.70	2.68	26.24	27.73	24.43	25.62	47.00	-21.38	QP
5	774.16	3.13	28.35	27.45	23.89	27.92	47.00	-19.08	QP
6 pp	986.07	3.69	30.23	26.81	22.63	29.74	47.00	-17.26	QP



## 7 Immunity Test Results

### Performance Criteria Description in EN IEC 55014-2:2021

- Criterion A:** The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
- Criterion B:** The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however. No change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation and from what the user may reasonably expect from the apparatus if used as intended.
- Criterion C:** Temporary loss of function is allowed, provided the function is self recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.



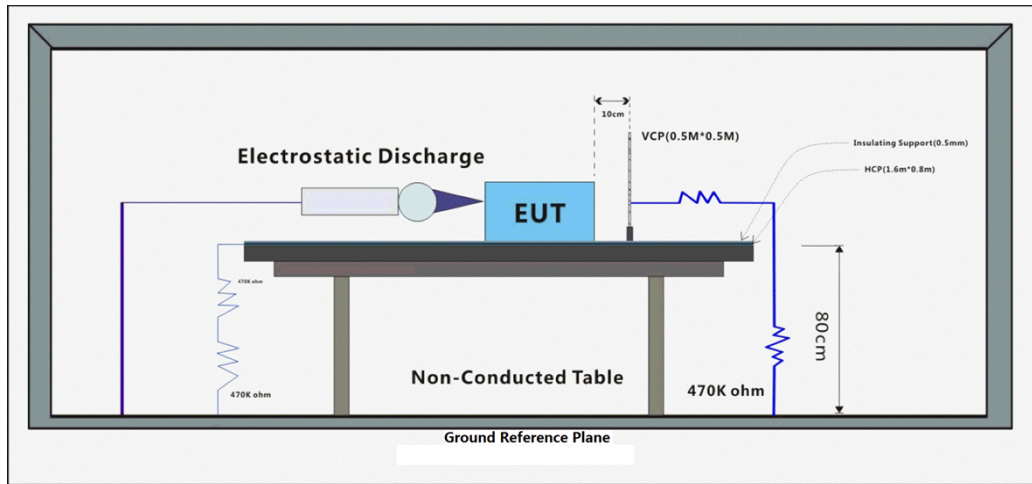


### 7.1 Electrostatic Discharge

Test Requirement: EN IEC 55014-2: 2021

Test Method: EN 61000-4-2:2009

#### 7.1.1 Test Setup Diagram



#### 7.1.2 E.U.T. Operation

Operating Environment:

Temperature: 26.3 °C

Humidity: 42.6 % RH

Atmospheric Pressure: 1005 mbar

#### 7.1.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	On mode, keep EUT sounding and flashing.
Final test	01	Idle mode, keep EUT standby.

#### 7.1.4 Test Condition and Results:

Performance Criterion: C

Discharge Impedance: 330 Ω / 150 pF

Discharge Voltage: Air Discharge: 8 kV; Contact Discharge: 4 kV; VCP/HCP: 4 kV.

Polarity: Positive & Negative

Number of Discharge: Minimum 10 times at each test point

Discharge Mode: Single Discharge

Discharge Period: 1 second minimum

Test Point 1: All insulated enclosure & seams.

Test Point 2: All accessible metal parts of the enclosure.

Test Point 3: All sides.





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Discharge type	Level (kV)	Polarity	Test Point	Result / Observations
Air Discharge	8	+	1	A
Air Discharge	8	-	1	A
Contact Discharge	4	+	2	A
Contact Discharge	4	-	2	A
Horizontal Coupling	4	+	3	A
Horizontal Coupling	4	-	3	A
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A
A: No degradation in the performance of the EUT was observed				



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### 8 Test Setup Photo

#### Radiated Emissions (30MHz-1GHz)



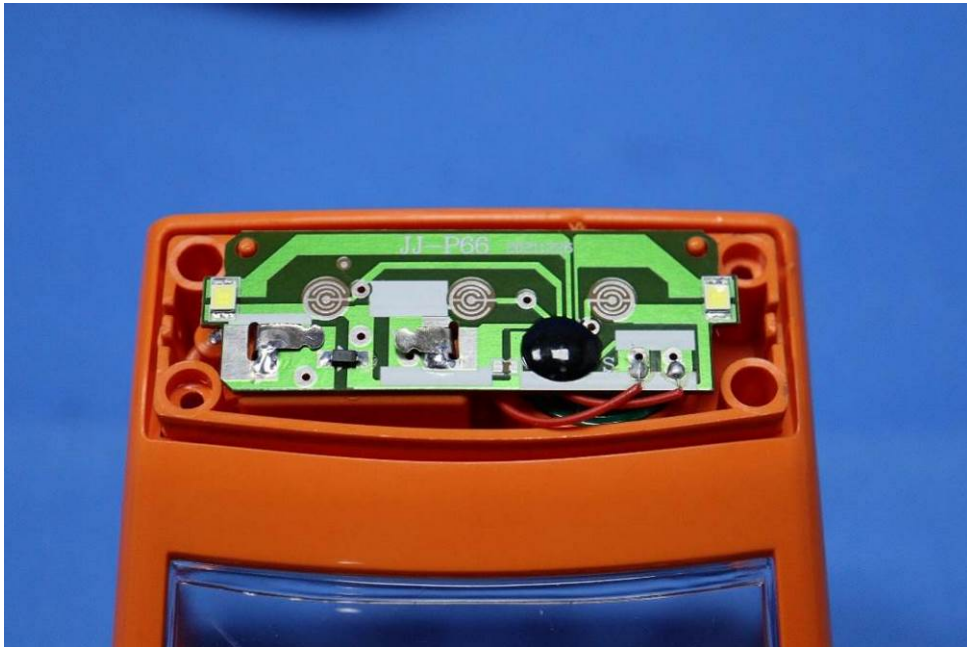
#### Electrostatic Discharge



### 9 EUT Constructional Details (EUT Photos)





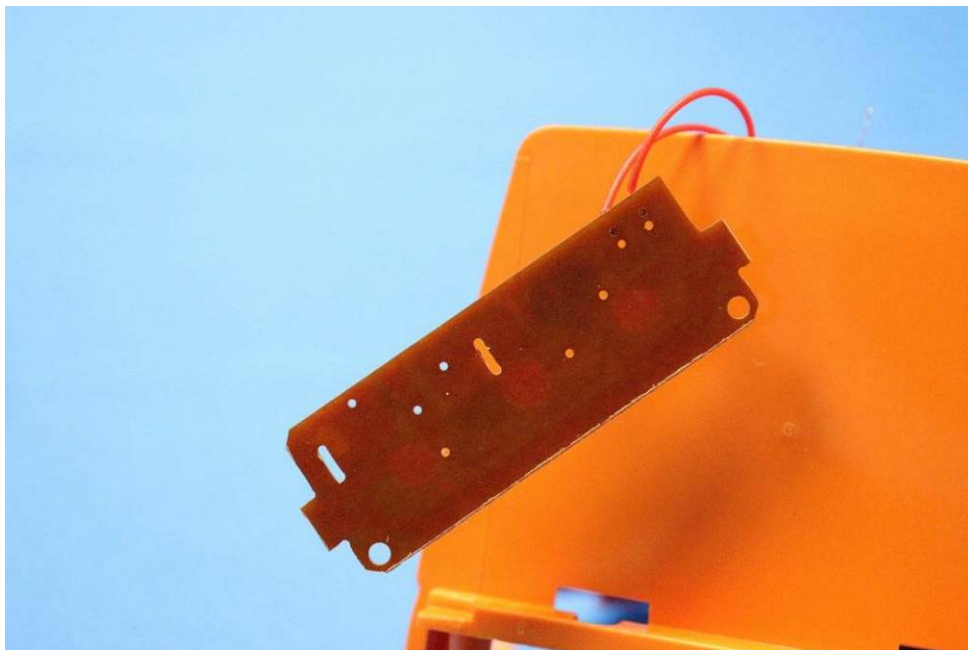


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