

# TEST REPORT

## *Electrical Safety*

**Test of :** Spider Robot

**Model Number :** BinaryBotsTotem

**SGS Reference :** ELS251320/1/R/JS/18

**Applicant :** CB Information Systems

**Test Specification :** EN 62115:2005 +\*A12:2015  
EN 60950-1:2006 +A12:2011 +A2:2013

**Date of Receipt :** 12<sup>th</sup> March 2018

**Date of Test(s) :** 13<sup>th</sup> March 2018 to 13<sup>th</sup> April 2018

**Date of Issue :** 13<sup>th</sup> April 2018

**Issue Number :** 1

**Conclusion :** The sample tested was found to comply with the Test Specification.

Signature

Signature

**Test Engineer***J Shepherd***Authorised Signatory***A Nicholson*

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 28 days only.

**Tests marked (\*) are not UKAS accredited, in addition any opinions or interpretations expressed herein are outside the scope of the UKAS accreditation.**

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## 1. Client Information

**Company Name:** CB Information Systems

**Address:** Innovation Centre  
Innovation Way  
Heslington  
York  
YO10 5DG

**Contact Name:** Tom Stokes

**Telephone:** 0113 816 0196

**Email:** tom@cbinfosystems.com

## 2. Equipment Under Test (EUT)

### 2.1 Identification of EUT

<b>Model Number:</b>	Totem Spider Robot
<b>Unique Identifier:</b>	251320/1 S01 (SGS Sample Number)
<b>Description of EUT:</b>	Reprogrammable Spider Toy
<b>Supply Voltage:</b>	4.5V (3x LR03 1.5V batteries)
<b>Ports present:</b>	Micro USB

Unless otherwise stated results in this test report relate only to the samples tested.

## 3. Test Location

All testing performed as part of this assessment was undertaken at the following location;

SGS United Kingdom Ltd  
Units 12a and 12b Bowburn South Industrial Estate  
Bowburn  
Durham  
DH6 5AD  
United Kingdom

## 4. Purpose of Tests

### 4.1 Test Specification

EN 62115:2005 +A12:2015                      Safety of Toys  
EN 60950:2006 +A12:2011 +A2:2013      Information Technology Equipment - Safety

### 4.2 Purpose of tests

To determine the products compliance with the safety standards applicable.

## 5. Deviations or Exclusions from the Test Specifications

There were no deviations from the test specifications.

## 6. Operation of the EUT During Testing

### 6.1 Configuration and Peripherals

No peripheral or support equipment was required for the tests.

### 6.2 Operating Mode and Environmental Conditions

The operating modes and environmental conditions used for each individual test are described in the test results section of this report.

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## 7. Test Results

### 7.1 EN 62115:2005 +A12:2015 Assessment

<b>5</b>	<b>General conditions for tests</b>	<b>Pass</b>
Observations: The equipment under test is an constructional, educational toy that is to be constructed by a child of age 11 plus . Prior to the performance of testing the product was subject to the preconditioning tests of clause 5.15.		
<b>6</b>	<b>Criteria for reduced testing</b>	<b>Pass</b>
Observations: Parts of different polarity were not accessible following removal of detachable parts, except those in the battery compartment. Reduced testing was applied following criteria met in clause 6.1.		
<b>7</b>	<b>Marking and Instructions</b>	<b>Pass</b>
Observations: The packaging of the product was marked with "CB Information Systems" and "Totem Spider Robot". The electrical characteristics associated with the transformer power supply and battery supply were suitably marked on the product. A copy of the instruction manual was supplied, this was assessed and was found to contain all of the required information. The marking durability testing was carried out and found that the markings were not removed following 15 seconds of rubbing with water then Hexane.		
<b>8</b>	<b>Power input</b>	<b>N/A</b>
Observations: This clause was found to not be applicable to this product.		
<b>9</b>	<b>Heating and abnormal operation</b>	<b>Pass</b>
Observations: The temperature rises under normal and abnormal operating conditions were found to be within the limits specified in the standard. The tests of clause 9 were conducted with all LED's operating and the motor running constantly. A locked rotor test was conducted on the motor, there were no significant temperature rises recorded that would impair safety of the user.		
<b>10</b>	<b>Electric strength at operating temperature</b>	<b>Pass</b>
Observations: Tests not applied due to the exclusions of clause 6.1.		
<b>11</b>	<b>Moisture resistance</b>	<b>N/A</b>
Observations: This clause was found to not be applicable.		
<b>12</b>	<b>Electric strength at room temperature</b>	<b>Pass</b>
Observations: Tests not applied due to the exclusions of clause 6.1.		

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<b>13</b>	<b>Mechanical strength</b>	<b>Pass</b>
Observations: The enclosure of the equipment was sufficiently resilient to mechanical forces.		
<b>14</b>	<b>Construction</b>	<b>Pass</b>
Observations: This product was found to meet all of the requirements for construction, as far as applicable. The batteries of this product were found to be accessible but due to the age restriction of 11+ applied to the product, the requirement for two independent movements or access only with a tool be not applicable.		
<b>15</b>	<b>Protection of cords and wires</b>	<b>Pass</b>
Observations: Tests not applied due to the exclusions of clause 6.1.		
<b>16</b>	<b>Components</b>	<b>Pass</b>
Observations: Components were tested as part of the appliance.		
<b>17</b>	<b>Screws and connections</b>	<b>N/A</b>
Observations: Electrical connections not reliant upon screws therefore this clause was found to not be applicable.		
<b>18</b>	<b>Clearances and creepage distances</b>	<b>Pass</b>
Observations: Tests not applied due to the exclusions of clause 6.1.		
<b>19</b>	<b>Resistance to fire and heat</b>	<b>Pass</b>
Observations: The enclosure material was found to comply with a Glow Wire Test at 550°C.		

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## 7.2 EN 60950:2006 +A12:2011 +A2:2013 Assessment

<b>2</b>	<b>Protection from hazards</b>	<b>Pass</b>
Observations: The Totem Spider Robot is a limited power and limited current circuit, there are no hazards present with respects to electrical shock.		
<b>3</b>	<b>Wiring, connections and supply</b>	<b>N/A</b>
Observations: This product is supplied by three LR03 batteries, there is a terminal for connection with external devices by Micro USB connectors. The product is not intended for powering by Micro USB, this function is simply for re-programming of the unit. This clause was found to not be applicable.		
<b>4</b>	<b>Physical requirements</b>	<b>Pass</b>
Observations: The Totem Spider Robot poses no hazard if it is to fall, the mass of the product is less than 1kg. The product was impacted with a 50mm spherical mass of 500g. No hazard was presented following this impact test. A drop test at 1000mm, there was no hazard presented following this test. The plastic of the enclosure was subjected to the Needle flame test, no ignition of the material was observed.		
<b>5</b>	<b>Electrical requirements and simulated abnormal conditions</b>	<b>Pass</b>
Observations: The motor of the Totem Spider Robot was locked and operated, there were no significant temperature rises observed that would impair the safety of the user.		
<b>6</b>	<b>Connection to telecommunication networks</b>	<b>N/A</b>
Observations: This clause was found to be not applicable.		
<b>7</b>	<b>Connection to cable distribution systems</b>	<b>N/A</b>
Observations: This clause was found to be not applicable.		

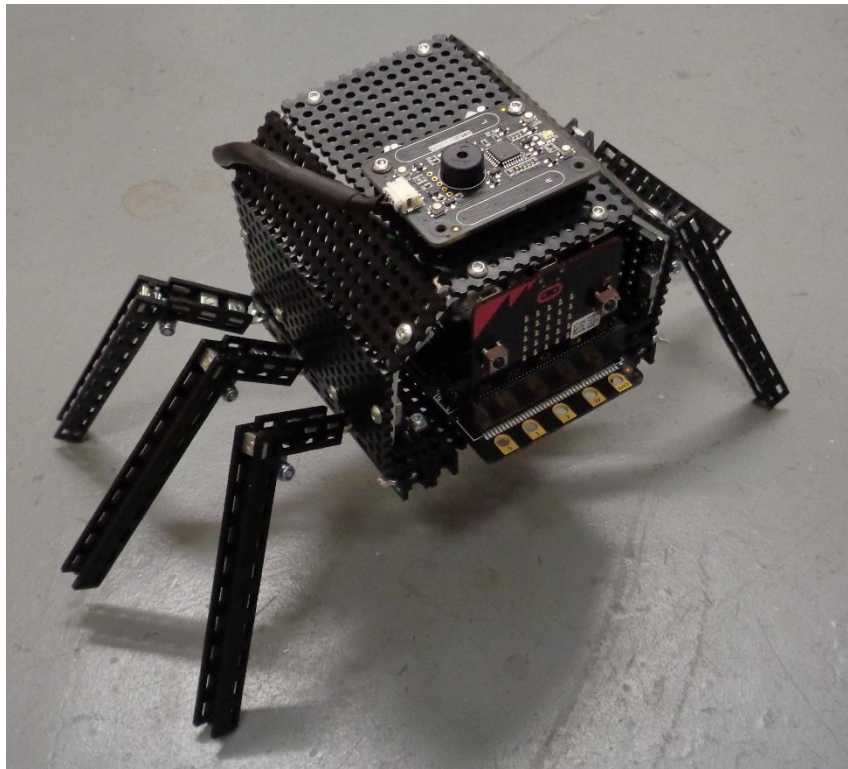
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## 8. Photographs



**CB Information Systems Ltd**  
**YO10 5DG UK**

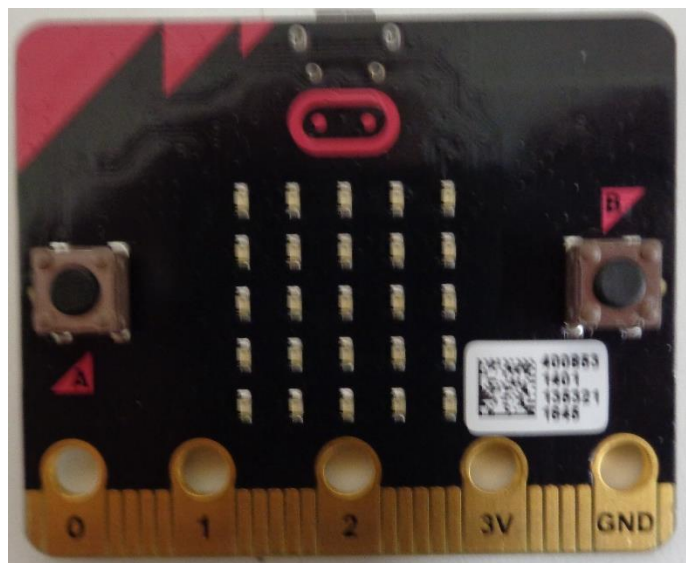
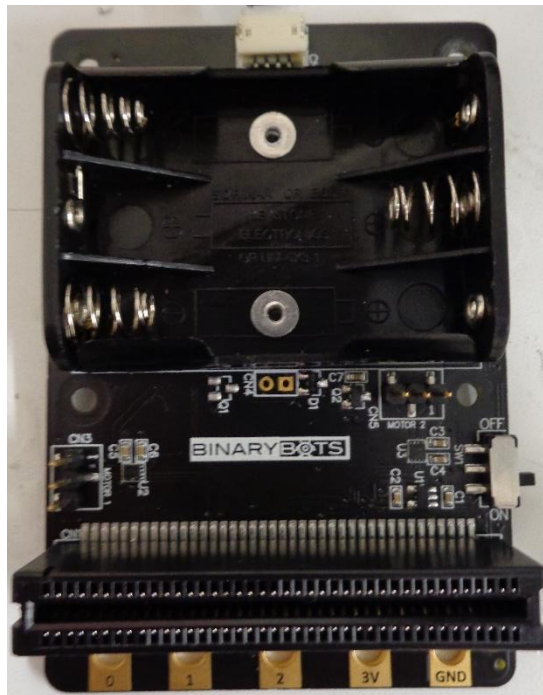


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