

# Testing Summary

## 1. Functional test cases

Tool: manual, JUnit

Function Name	Start page mode selection		
Case purpose	Test whether the player can successfully choose different modes or not		
Prerequisites	The player successfully installs the NewDots and open the app.		
Input		Expectation Output	Implement
Click LEVEL MODE button		Open preparing page	✓
Click START button on preparing page		Start the game	✓
Click back button on preparing page		Back to the Start page	✓
Click TIME MODE button		Start the game with time decreasing	✓
Click STEP MODE button		Start the game with initial steps	✓
Click back button on game playing page		Back to the Start page	✓
Click RECORD button		Open the record page	✓
Click back button on the record page		Back to the Start page	✓
Click RECORD button		Open the Score record page	

Function Name	Game process		
Case purpose	Test whether the game functions are successfully implemented or not		
Prerequisites	The player successfully open the game playing pages		
Input		Expectation Output	Implement
Vertically or horizontally connect the same colour dots		1. Successfully eliminate those dots 2. Their places are fulfilled by the upper dots 3. The total number and the layout of dots remain the same 4. Sum the score	✓
Square the same colour dots		1, 2, 3, 4 and 5. Successfully eliminate all dots with the colour same as those squared	✓
Time runs out		Automatically redirect to the Score page	✓
Steps run out		Automatically redirect to the Score page	✓
Click PLAY AGAIN button		Successfully redirect to the Start page	✓
Click back button on game playing page		Successfully redirect to the Start page	✓

Function Name	Data process		
Case purpose	Test whether the data process during the game is correct or not		
Prerequisites	The app is running		
Input		Expectation Output	Implement
The return value of the methods		See Junit assertions	See Junit results

## 2. Compatibility Test

Tool: Android Devices, Android Virtual Devices

Android (Virtual) Devices	Compatibility
Nexus 5X API 26, 1080 × 1920: 420dpi	✓
Pixel 2 XL API 26, 1440 × 2880: 560dpi	✓
Meizu Pro 6, 1920 × 1080: 424ppi	✓

## 3. UI test

Tool: manual

Item	Evaluation
Is the layout of titles on the pages correct?	✓
Is the layout of game information on the pages correct? (e.g., score, best record, time, steps)	✓
Is the layout of dots on the pages correct?	✓
Is the layout of buttons on the pages correct?	✓
Is the front appropriate?	✓
Are the backgrounds of pages appropriate?	✓