

Test Cases

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Project: Resource Locking - 4-Bit/2-Disclosure Devices

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4-Bit/2-Disclosure Unlocker

- 1.1 Test cases involving an already unlocked device. The spin() should return true and no changes should be made as this indicates that the device is already unlocked.
 - 1.1.1. All true: TTTT.
 - 1.1.2. All false: FFFF.
- 1.2 Test cases involving a device that has all the bits the same except for one.
 - 1.2.1. Involving mostly true bits.
 - 1.2.1.1. TTTF.
 - 1.2.1.2. TTFT.
 - 1.2.1.3. TFTT.
 - 1.2.1.4. FTTT.
 - 1.2.2. Involving mostly false bits.
 - 1.2.2.1. FFFT.
 - 1.2.2.2. FFTF.
 - 1.2.2.3. FTFF.
 - 1.2.2.4. TFFF.
- 1.3 Test cases involving a device that has two bits that are true and two bits that are false.
 - 1.3.1. Test cases involving an alternating set of bits.
 - 1.3.1.1. Starting with true: TFTF.
 - 1.3.1.2. Starting with false: FTFT.
 - 1.3.2. Test cases involving two of the same bits on the end and two different ones in the middle.
 - 1.3.2.1. Starting with true: TFFT.
 - 1.3.2.2. Starting with false: FTTF.
 - 1.3.3. Test cases starting with one and ending with the other.
 - 1.3.3.1. Starting with true: TTFF.
 - 1.3.3.2. Starting with false: FFTT.
- 1.4. We want to verify that the FourBitTwoDisclosureDeviceUnlocker class actually halts. To check this, MAX_SPIN_COUNT will be set to fifty.