CONTACT WITH iPhone 5 METAL.

- obstruct the acoustic openings: front mic, rear mic, earpiece, and speaker.
- obstruct the imaging features: front camera, rear camera, rear flash.
- obstruct the proximity sensor or ALS (Ambient Light Sensor).

**View C-C Scale 3:1**

- 47.59 proximity
- 2.52 ringer switch
- 6.40 +volume button
- 6.40 -volume button
- 2x 2.36

**View E-E Scale 3:1**

- 10.80 earpiece
- 1.02 rear mic
- 3.70 rear flash
- 0.46 rear camera

**View D-D Scale 3:1**

- 3.47 front camera
- 2.30 earpiece
- 1.44 all around
- 123.93 sim tray
- 54.86

**View B Scale 2:1**

- 2.27 bottom mic
- 9.29 audio jack
- 2x Ø 1.6 screws
- 2x 2.59 bottom mic
- 2.00 speaker

**Recommended mating connector keepout area:** flush to body outward 14.0
Rep. Jeff Barker (D-Portland) doesn't support the current version of the bill but hopes backers can "tailor a bill that doesn't go after super-secret information that industries have."
iPhone X Breaks into Market Share

- iPhone 7: 19.74%
- iPhone 6S: 18.58%
- iPhone 6: 16.77%
- iPhone 7 Plus: 13.83%
- iPhone 6S Plus: 6.77%
- iPhone 5S: 6.43%
- iPhone SE: 4.91%
- iPhone 6 Plus: 4.77%
- iPhone 8 Plus: 2.18%
- iPhone 8: 1.68%
- iPhone 5: 1.51%
- iPhone 5C: 1.19%
- iPhone X: 0.93%
- iPhone 4S: 0.58%
- iPhone 4: 0.14%

Source: Localitys November 2017
We no longer get access to what we need to maintain many electronics:

- No schematics or repair documentation
- No OEM spare parts
- No diagnostic software
- No access to firmware updates
- Special proprietary tools
Why is it so hard to fix our stuff?

- We no longer get access to what need to maintain many electronics
  - No schematics or repair documentation
  - No OEM spare parts
  - No diagnostic software
  - No access to firmware updates
  - Special proprietary tools
  - Software locks that only dealers can unlock
How does our opposition see Right to Repair?

What are the large manufacturers’ goals?
<table>
<thead>
<tr>
<th>The Circular Monopoly</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers are “licensed users”</td>
<td>You own it</td>
</tr>
<tr>
<td>Life cycle of product is proprietary</td>
<td>You can keep it for as long as you want</td>
</tr>
<tr>
<td>Product is considered intellectual property to the greatest extent possible</td>
<td>Product is considered personal property of the consumer</td>
</tr>
<tr>
<td>Customer dependent on manufacturer for continued use of product</td>
<td>Customer has greatest possible array of choices for continued use</td>
</tr>
</tbody>
</table>
Right to Repair Model Legislation

• A state law to require companies give us access to:
  • Schematics or repair documentation
  • OEM spare parts
  • Diagnostic software
  • Firmware updates
  • Any special tools

On “fair and reasonable” terms
Our values:

REPAIR MANIFESTO
WE HOLD THESE TRUTHS TO BE SELF-EVIDENT
IF YOU CAN'T FIX IT, YOU DON'T OWN IT.

REPAIR IS BETTER THAN RECYCLING
Making our things last longer is both more efficient and more cost-effective than mining them for raw materials.

REPAIR SAVES YOU MONEY
Fixing things is often free, and usually cheaper than replacing them. Doing the repair yourself saves you money.

REPAIR TEACHES ENGINEERING
The best way to find out how something works is to take it apart.

REPAIR SAVES THE PLANET
Earth has limited resources. Eventually we will run out. The best way to be efficient is to reuse what we already have.
On average, America throws out 416,000 Phones Every Day.
The Coalition for Right to Repair

IFIXIT

repair.org
Me and my network
Front 1: State laws

[Map showing states with blue indicating state laws]
Our strategy:
• We no longer get access to what need to maintain many electronics
• No schematics or repair documentation
• No OEM spare parts
• No diagnostic software
• No access to firmware updates
• Special proprietary tools
Front 2: Fixing Copyright Law

Cory Doctorow and Kyle Wiens discussing a hearing on the DMCA in Los Angeles in April.
Front 3: Fixing our throwaway mentality
Recent Progress:

- Huge win for DMCA 1201 exemptions:

  ‘Right-to-repair’ advocates claim major victory in new smartphone copyright exemption

In Groundbreaking Decision, Feds Say Hacking DRM to Fix Your Electronics Is Legal

The new exemptions are a major win for the right to repair movement and give consumers wide latitude to legally repair the devices they own.
Recent Progress:

- Huge win for DMCA 1201 exemptions:
FTC Signals more coming

45 Out of 50 Electronics Companies Illegally Void Warranties After Independent Repair, Sting Operation Finds

New research showed that 90 percent of contacted companies told customers that repairing their own device would void the warranty; that's illegal under federal law.

NEWS RELEASE

AFTER WARNING COMPANIES THAT "VOID WARRANTY IF REMOVED" ARE ILLEGAL, THE FTC IS EXPANDING THEIR INVESTIGATION INTO ANTI-REPAIR PRACTICES

Statement from U.S. PIRG applauds the move

WEDNESDAY, MARCH 13, 2019

The Federal Trade Commission announced today it will expand its efforts to prevent anti-repair activities by holding a workshop on the subject in July and also committing to more research into these practices by manufacturers.

This announcement comes after the FTC sent warning letters last April to six companies saying their "void warranty if removed" stickers violated consumer rights under Magnuson-Moss Warranty Act. A subsequent survey in October by U.S. PIRG Education Fund, "Warranties in the Void," showed
How you can get involved:

1) Take action at Repair.org - let your state representatives know you want Right to Repair
2) Help us counter industry claims
3) Support U.S. PIRG, Repair.org and other organizations working on the issue
securepairs.org
security professionals for a fixable future

Fixable stuff is secure stuff.

Join other information security professionals in supporting the rights of owners and independent repair professionals.

Join Us!