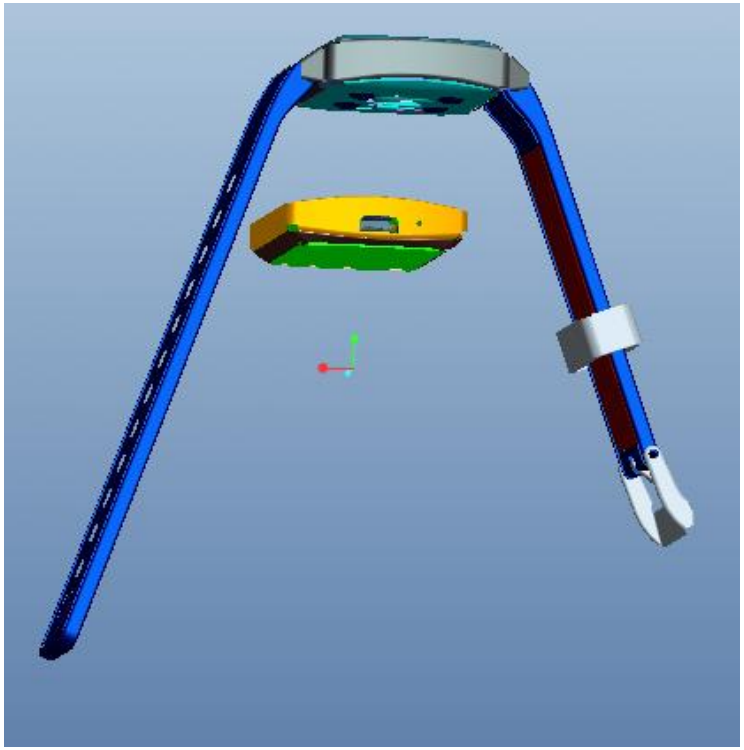
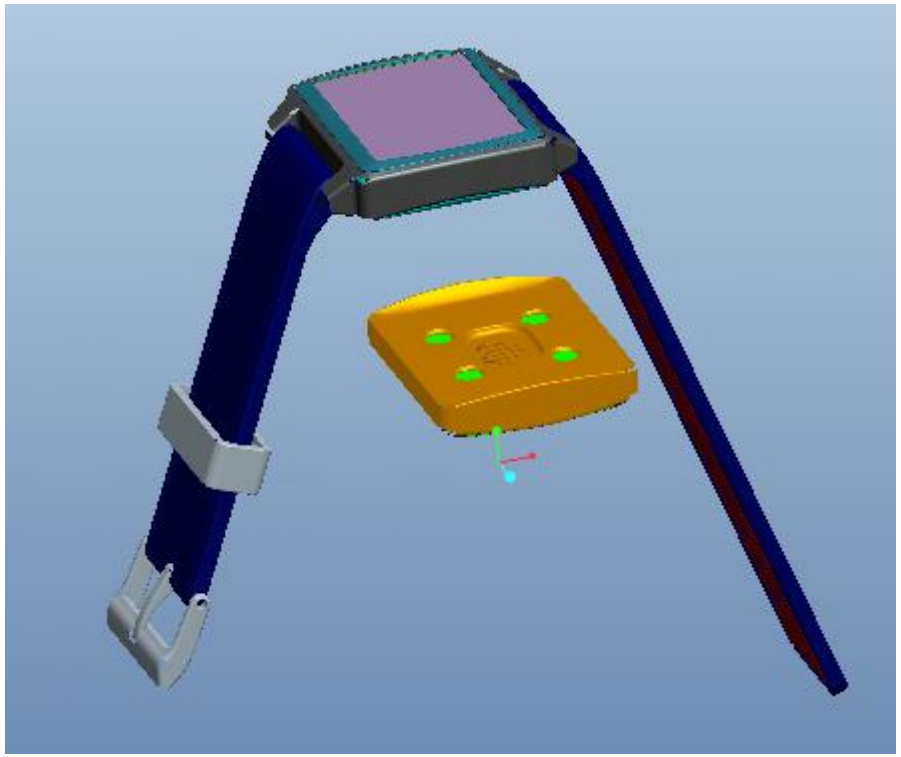
FLEXTRONICS

High Velocity Solutions

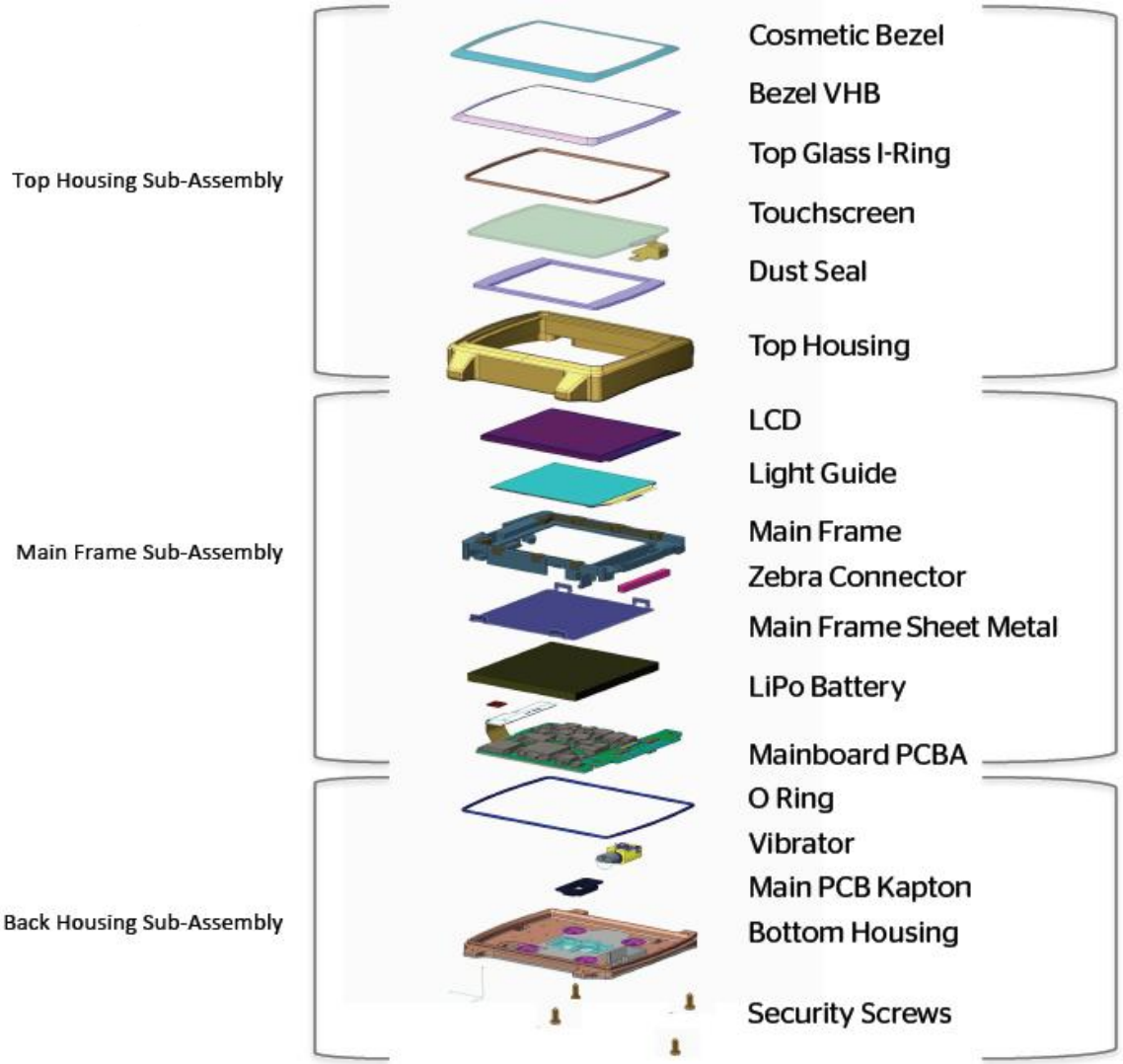
executing at the speed of innovation

Folsom Overview





Watch Overview



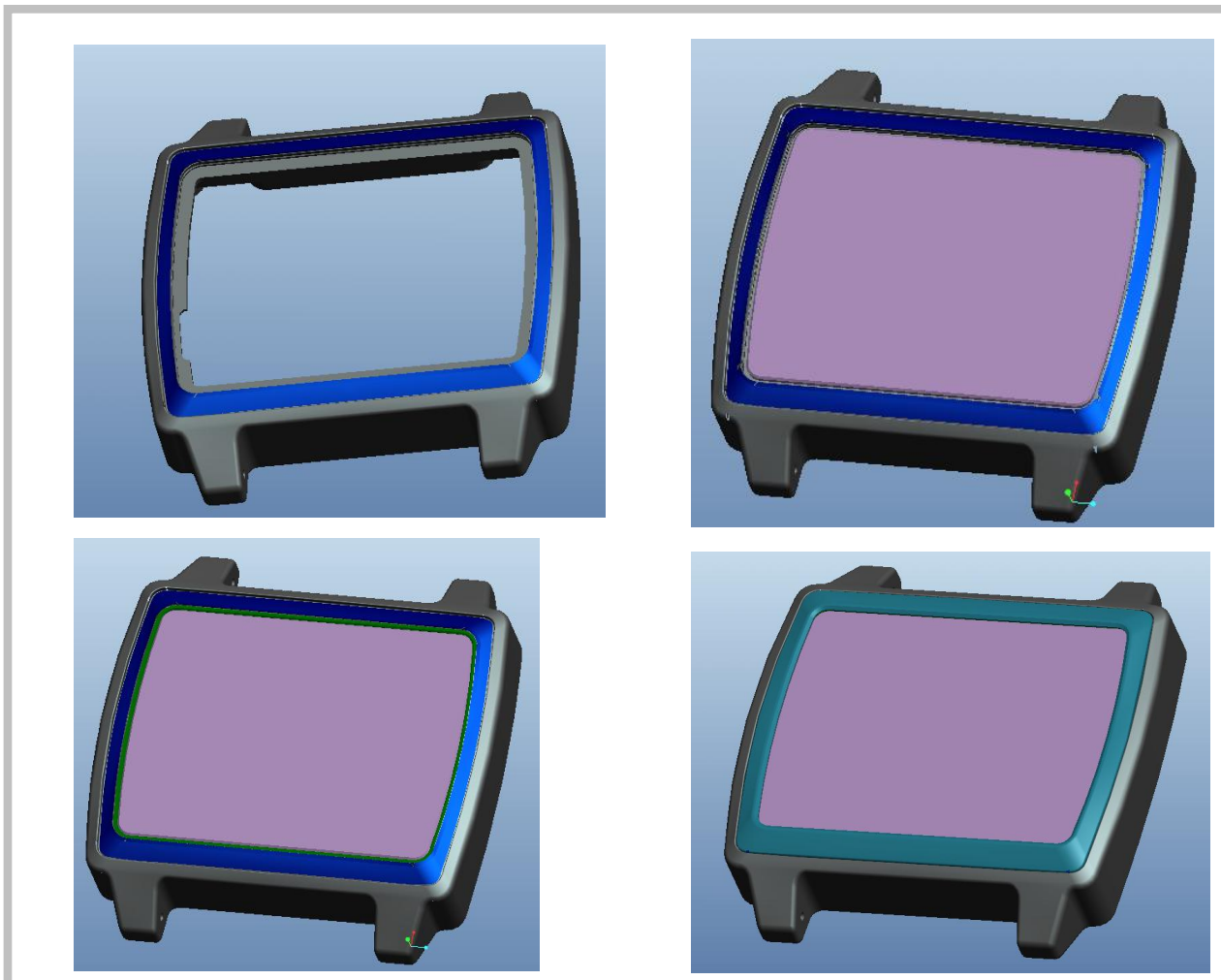
SA2- Install touch sensor on top housing

Process Flow

1. Place top housing on fixture
2. Stick bezel VHB on top housing
3. Install touch sensor on top housing
4. Install L-ring on top housing
5. Peel off the protect paper of VHB, then install cosmetic bezel on top housing
6. Pressure 30s'
7. Pass it to next station

Item	Data
Estimated Cycle Time (S)	37
Expected Yield(%)	99.7%
Fixture& Tool	Cosmetic bezel pressure fixture

Illustration

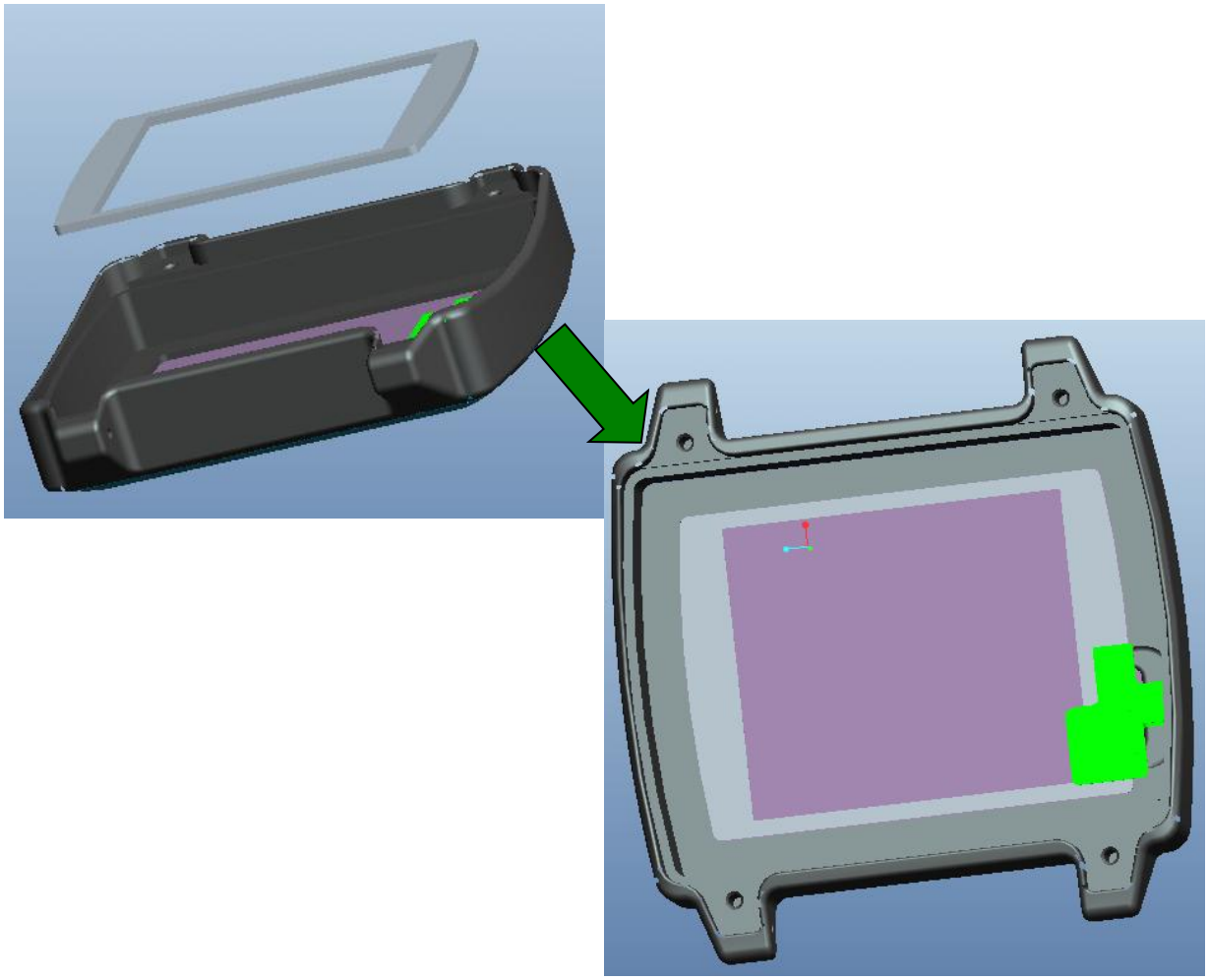


SA3- Stick dust seal on top housing

Process Flow

1. Place top housing on fixture
2. Stick a dust sealing on top housing
3. Pass it to next station

Illustration



Item	Data
Expected Yield(%)	99.5%
Fixture& Tool	Sticking fixture

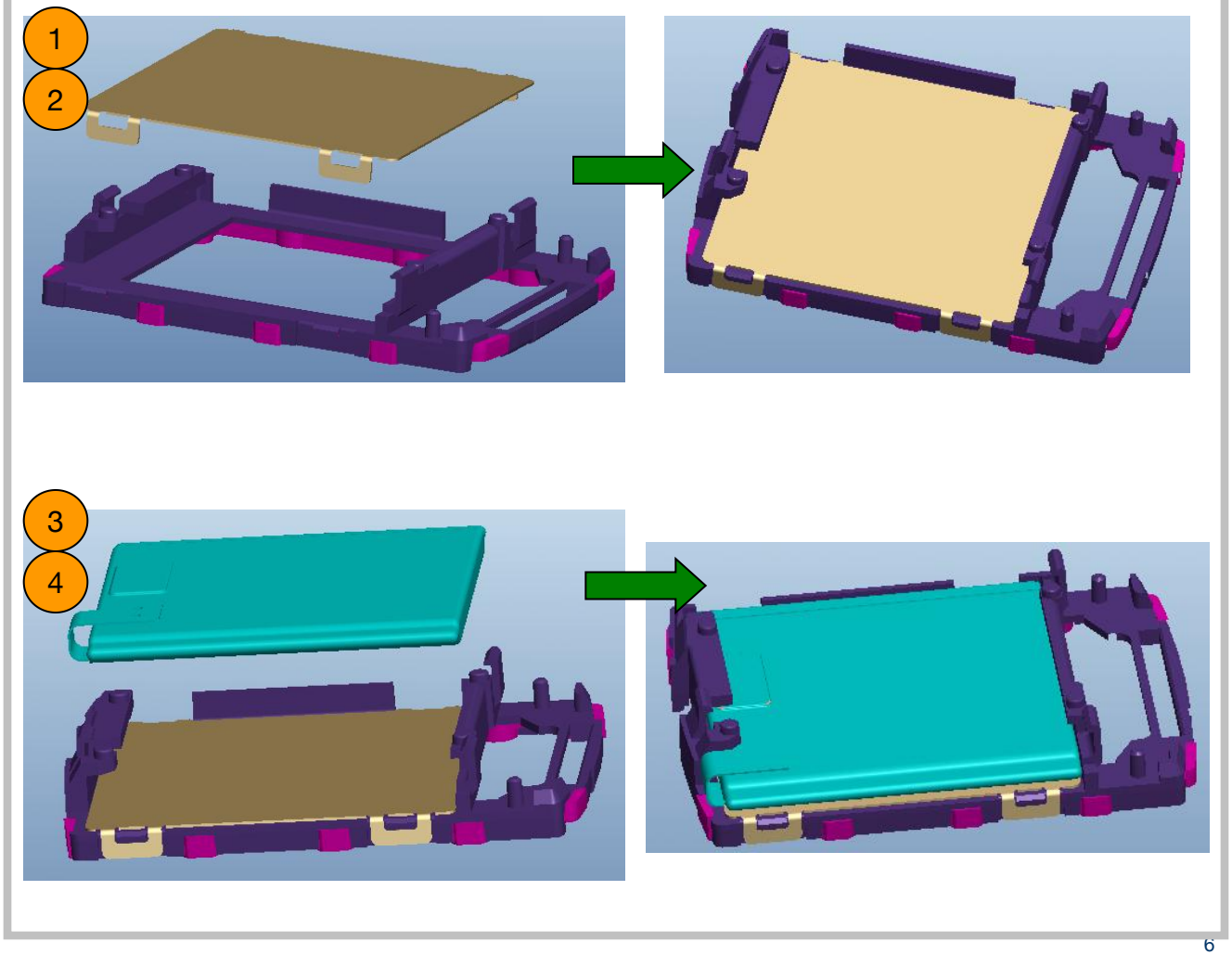
FA1- Install sheet metal & battery on main frame

Process Flow

1. Place main frame on fixture
2. Snapping metal sheet on main frame
3. Stick a adhesive tape on metal sheet, and peel off the protect paper
4. Install the battery on main frame
5. Pass it to next station

Item	Data
Expected Yield(%)	99.9%
Fixture& Tool	Battery installing fixture

Illustration

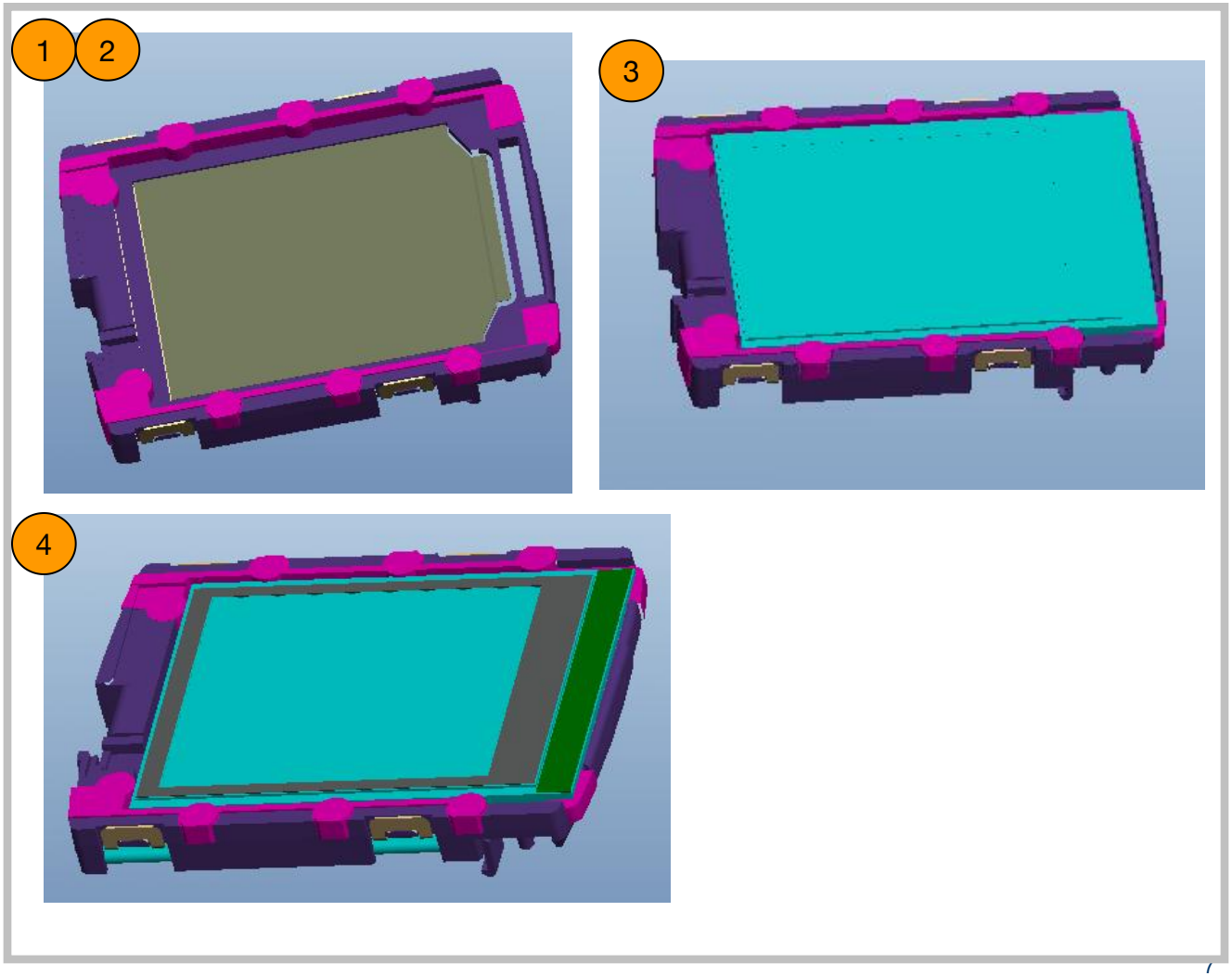


FA2- Install light guide and LCD on main frame

Process Flow

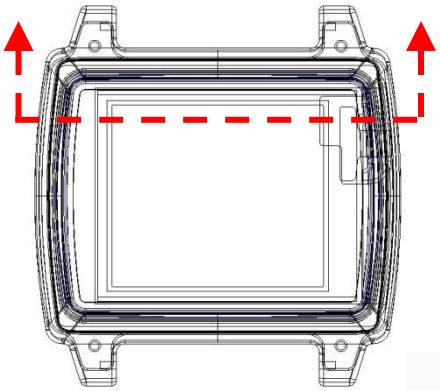
1. Place main frame on fixture
2. Install light guide on main frame
3. Install LCD on main frame
4. Stick a foam on LCD
5. Pass it to next station

Illustration



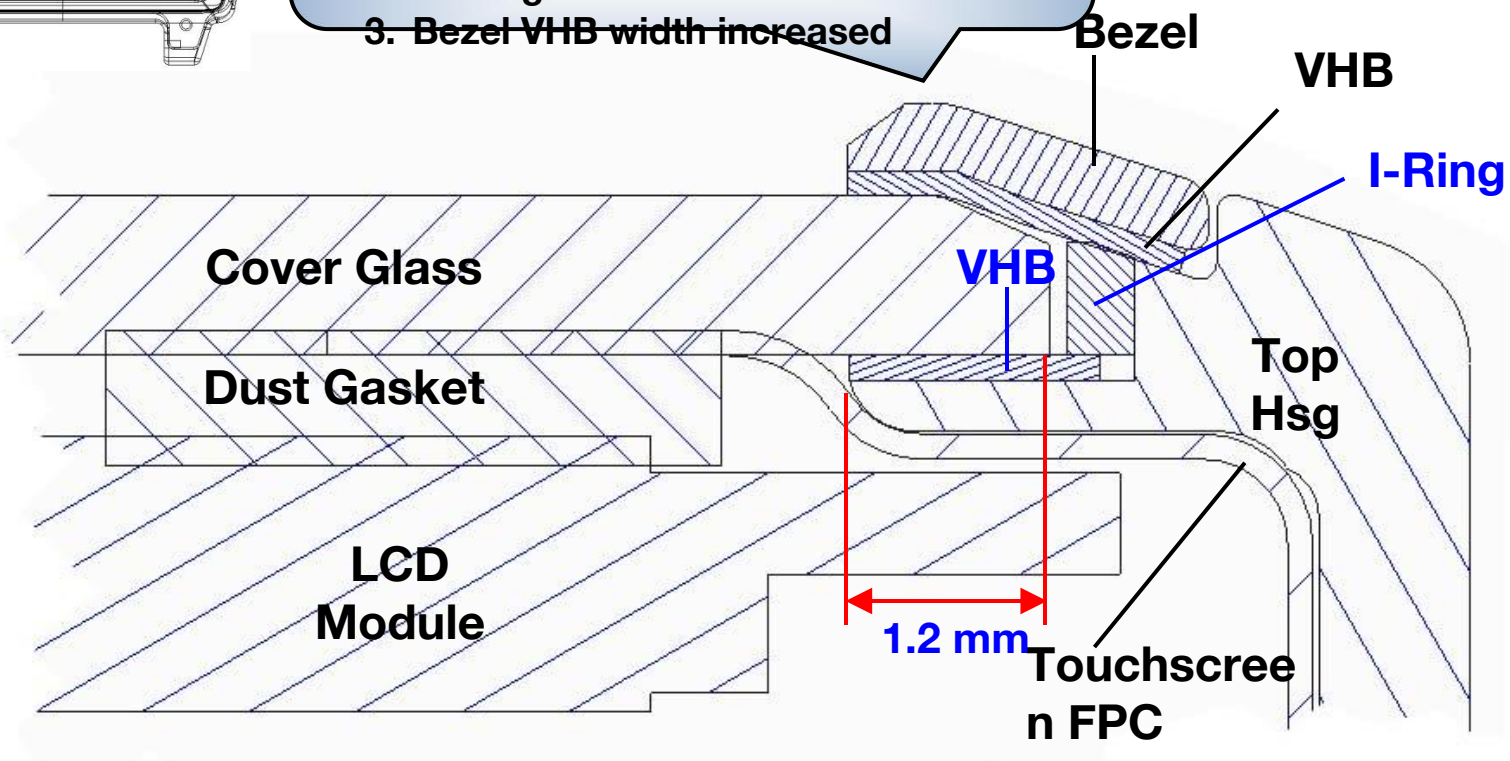
Item	Data
Expected Yield(%)	99.8%
Fixture& Tool	LCD installing fixture

DFA PROPOSAL: sealing of Cover Glass to Top Hsg

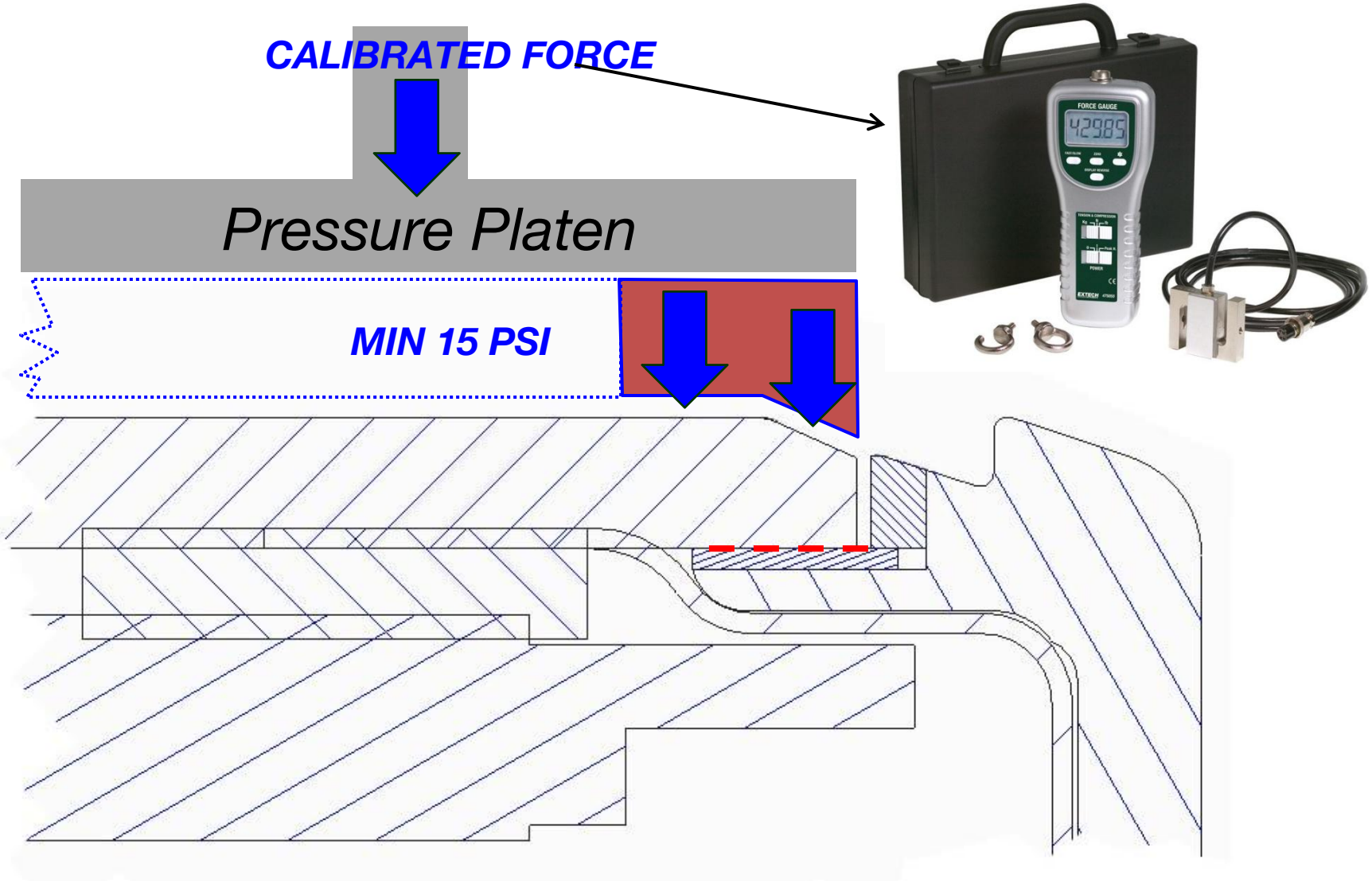


SOLUTION:

1. CG size increased to overlap with Top Hsg
2. Sealing VHB added under CG
3. ~~Bezel VHB width increased~~



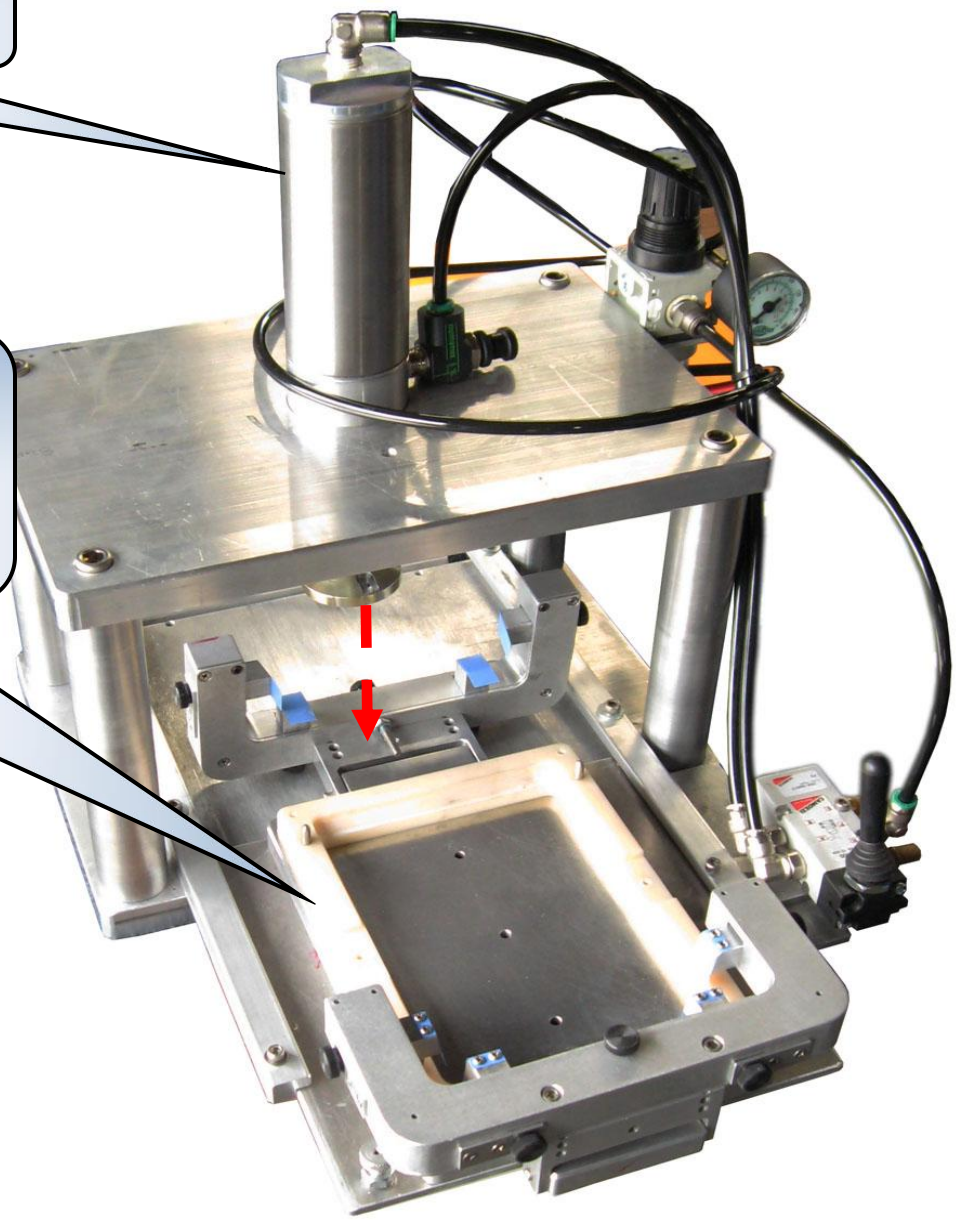
DFA PROPOSAL: How Flextronics ensures VHB seal?



DFA PROPOSAL: How CG placed accurately to Hsg?

The fixture is calibrated so that exact required force bonds the VHB, without breaking glass.

1. Top Housing (with VHB) locates into fixture.
2. Then shims (blue) swing into position.
3. Cover glass gently lowers, guided by shims to determine gap.
4. Then pressure platen bonds VHB

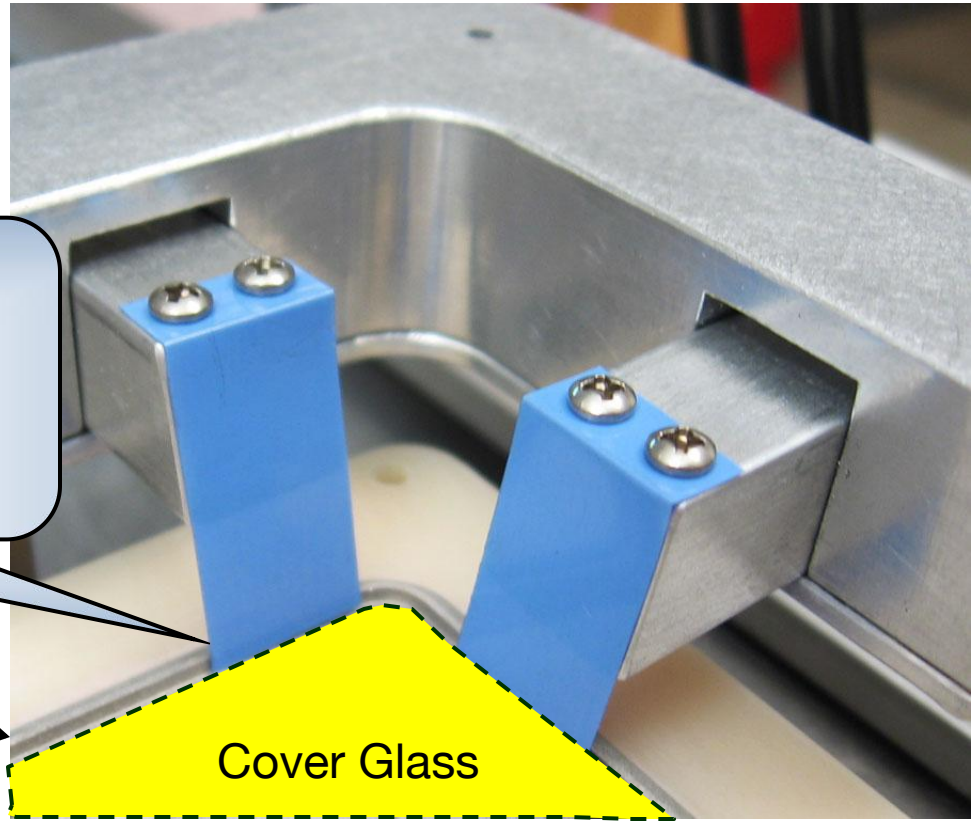


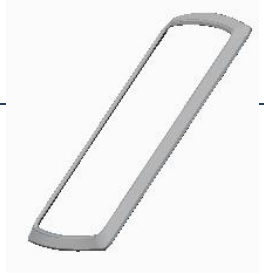
Example fixture used on different project. Bonds Cover Glass to metal housing

DFA PROPOSAL: How CG placed accurately to Hsg?

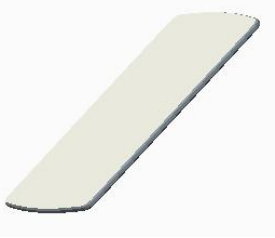
Tight-tolerance shims determine the gap from CG to Top Housing. Gaps (& shims) are typically 0.05 mm nominal

Shims are gently pulled out after adhesive has bonded between CG and Top Hsg+



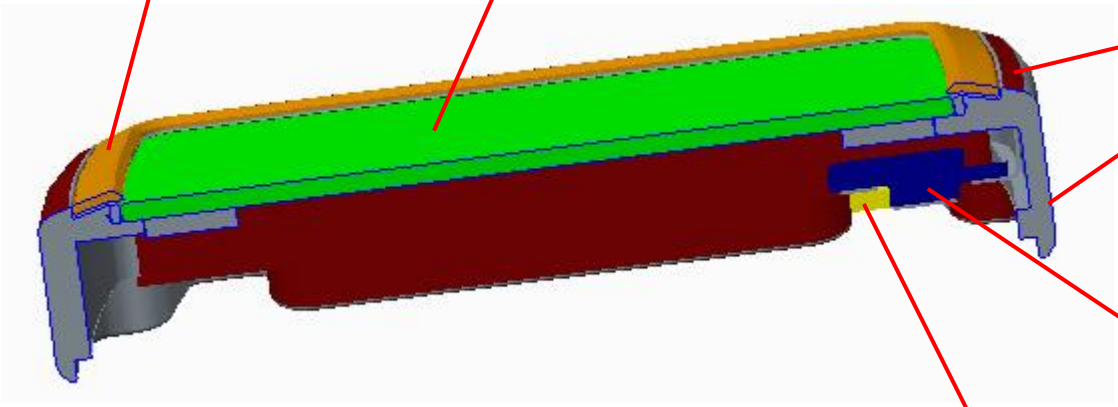


Bezel



Cover Glass

Top Housing



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