

Advanced Layouts with Flexbox

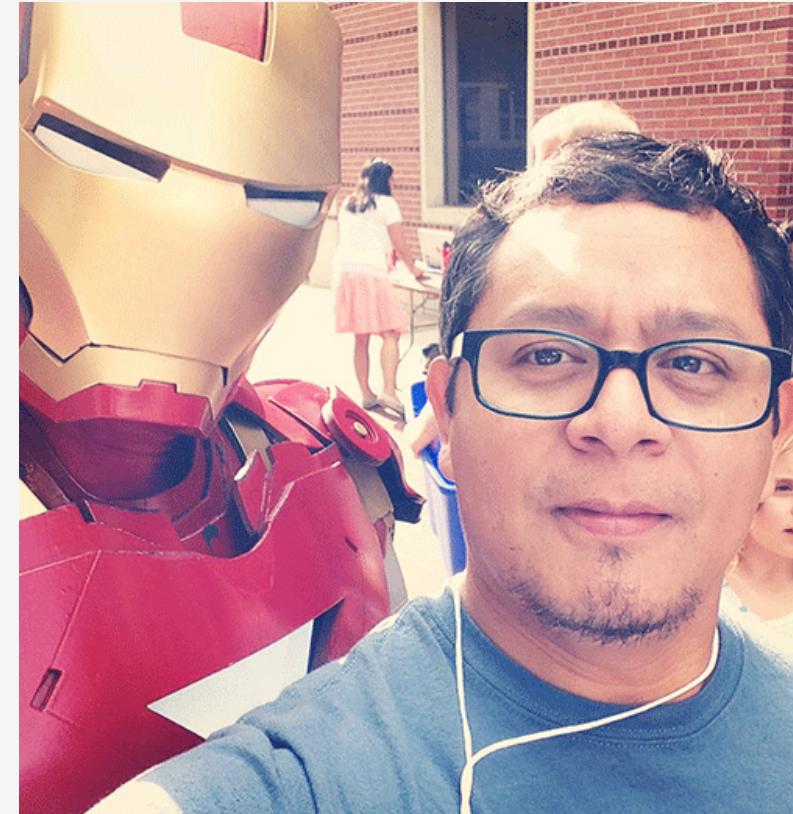
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We help organizations build highly impactful, elegantly designed **Drupal websites** that achieve the strategic results you need.



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- What Are the Problems?
- The Flexbox Way
- So What is Flexbox?
- Browser Support
- Getting to Know Flexbox
- Practical Use Cases
- Fallbacks
- Resources



What are the problems
with float layouts?



What are the problems with float layouts?

- Difficulty with containment



What are the problems with float layouts?

- Difficulty with containment
- Source order dependent



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- Difficulty with containment
- Source order dependent
- Difficulty with equal-height columns



What are the problems with float layouts?

- Difficulty with containment
- Source order dependent
- Difficulty with equal-height columns
- No float:center



What are the problems with float layouts?

- Difficulty with containment
- Source order dependent
- Difficulty with equal-height columns
- No float:center
- No vertical center



How does Flexbox solve these issues?



The Flexbox Way



The Flexbox Way

- Makes flex items grow to fill available space or shrink to avoid overflow



The Flexbox Way

- Makes flex items grow to fill available space or shrink to avoid overflow
- Gives flex items proportional dimensions



The Flexbox Way

- Makes flex items grow to fill available space or shrink to avoid overflow
- Gives flex items proportional dimensions
- Lays out flex items in any direction



The Flexbox Way

- Makes flex items grow to fill available space or shrink to avoid overflow
- Gives flex items proportional dimensions
- Lays out flex items in any direction
- Places flex items in any order independently of HTML order



What is Flexbox?

Flexbox is The New **Black**



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What is Flexbox?

The defining aspect of the flexbox is the ability to alter its items' width and/or height to best fill the available space on any display device.



What is Flexbox?

The defining aspect of the flexbox is the ability to alter its items' width and/or height to best fill the available space on any display device.

A flex container expands items to fill available free space, or shrinks them to prevent overflow.

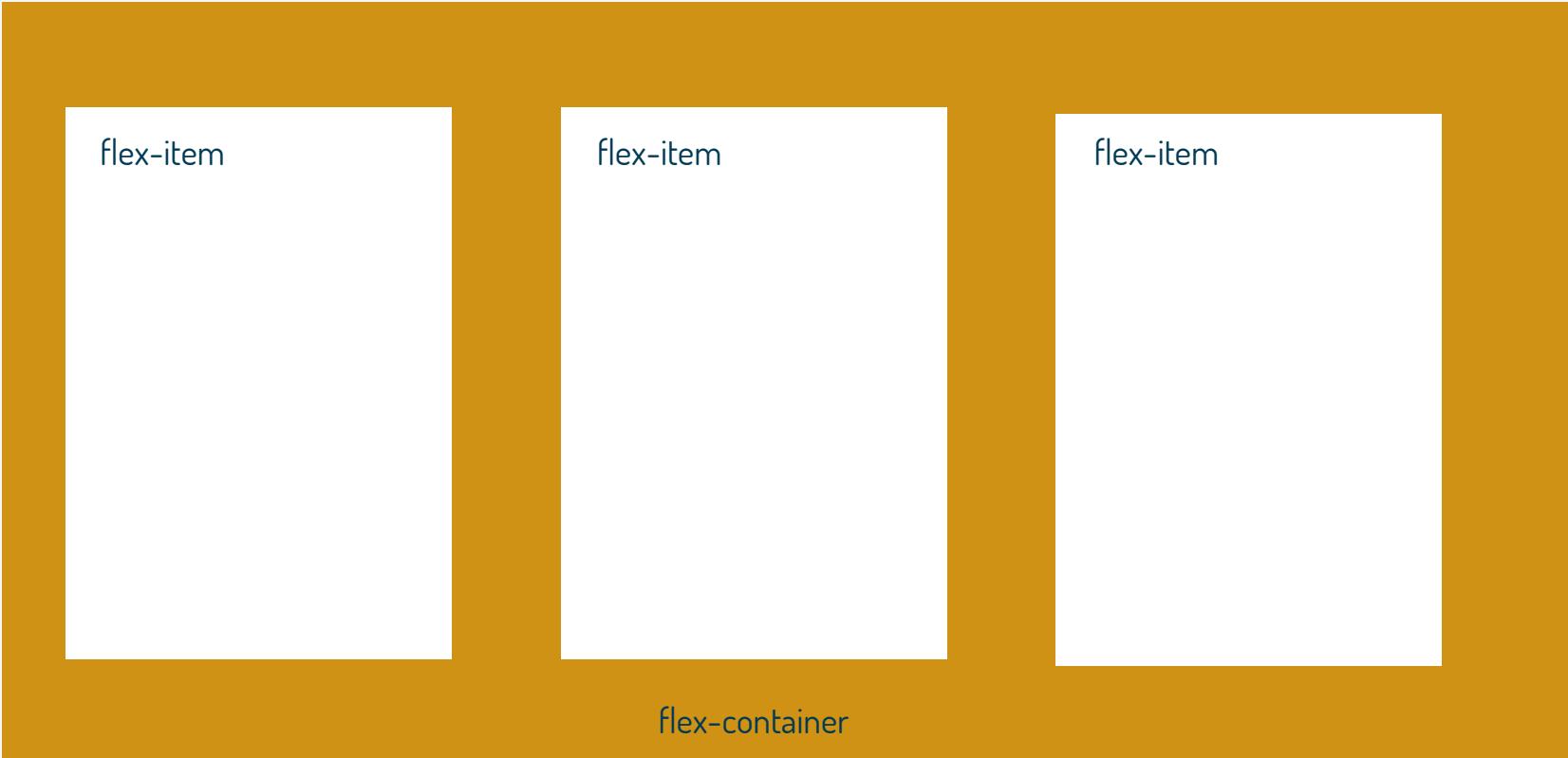




flex-container



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flex-item

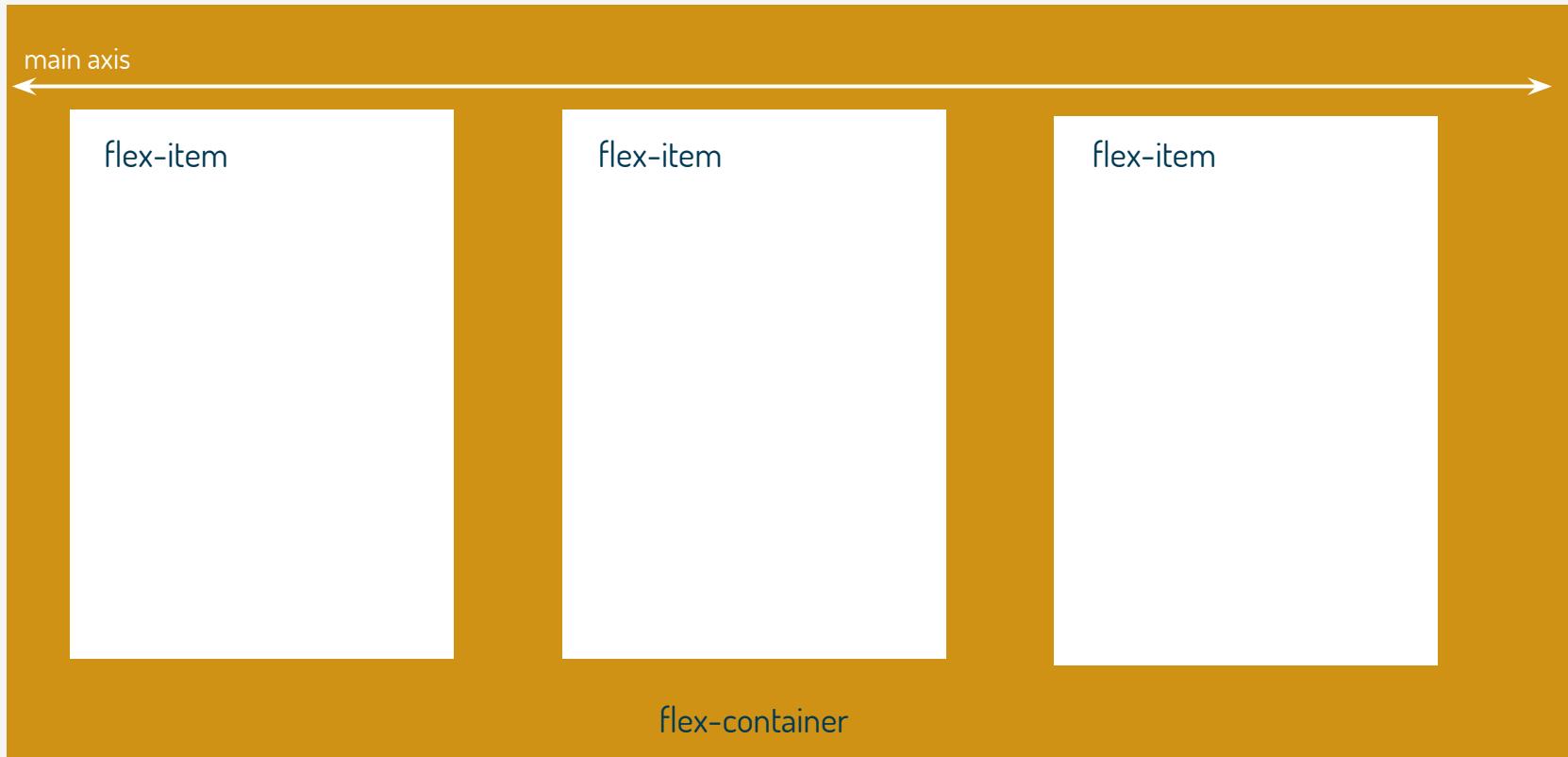
flex-item

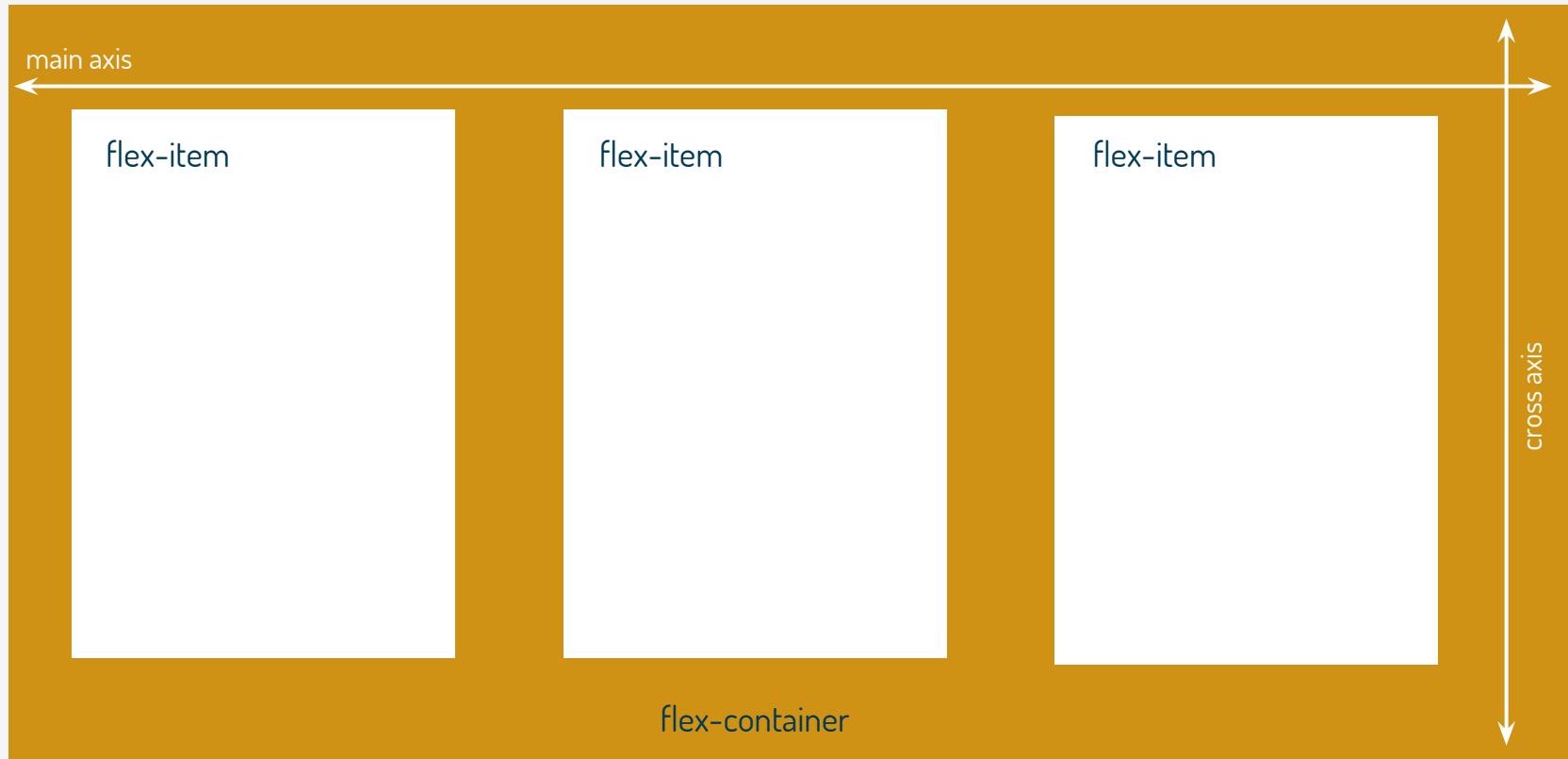
flex-item

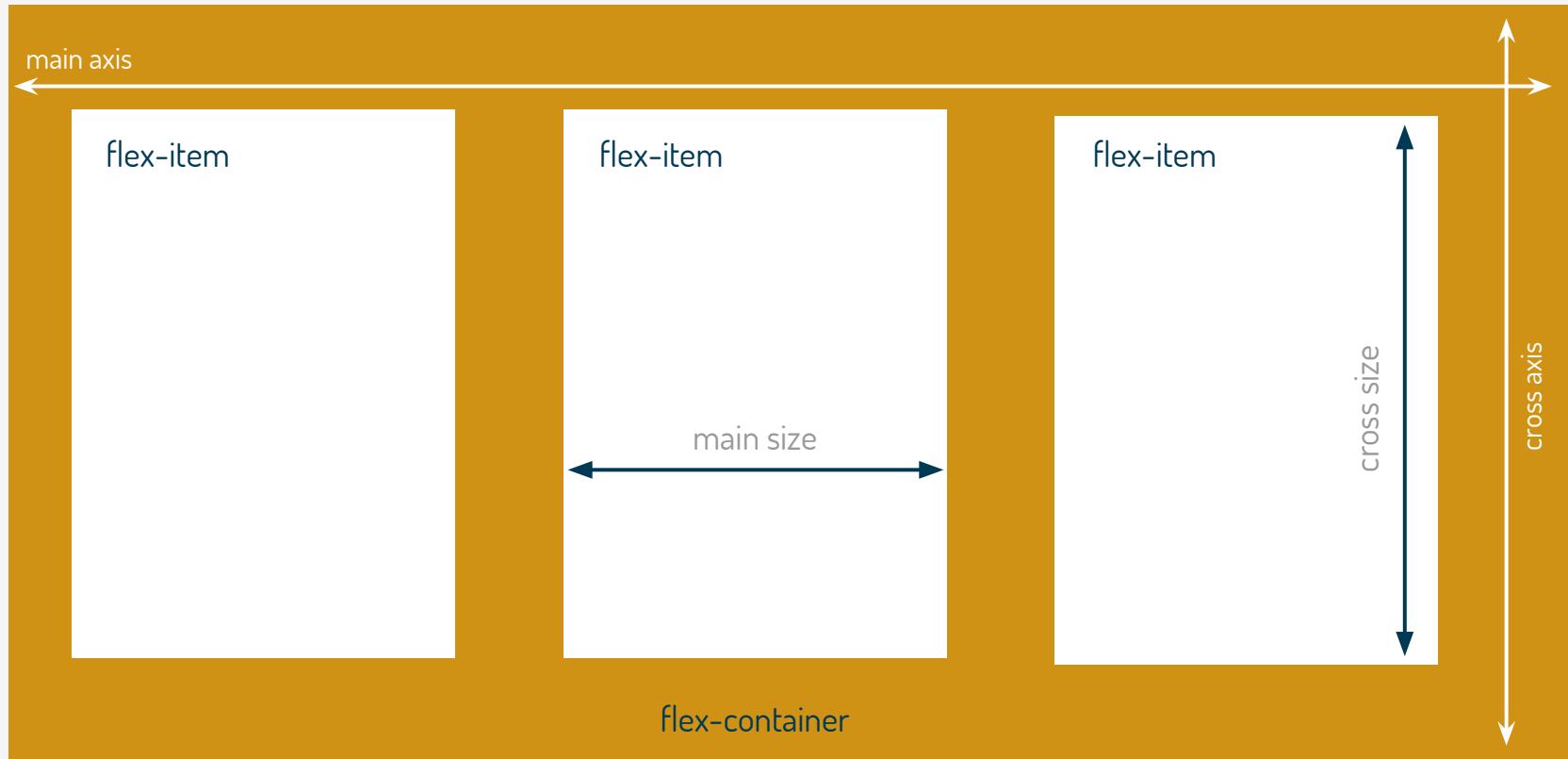
flex-container

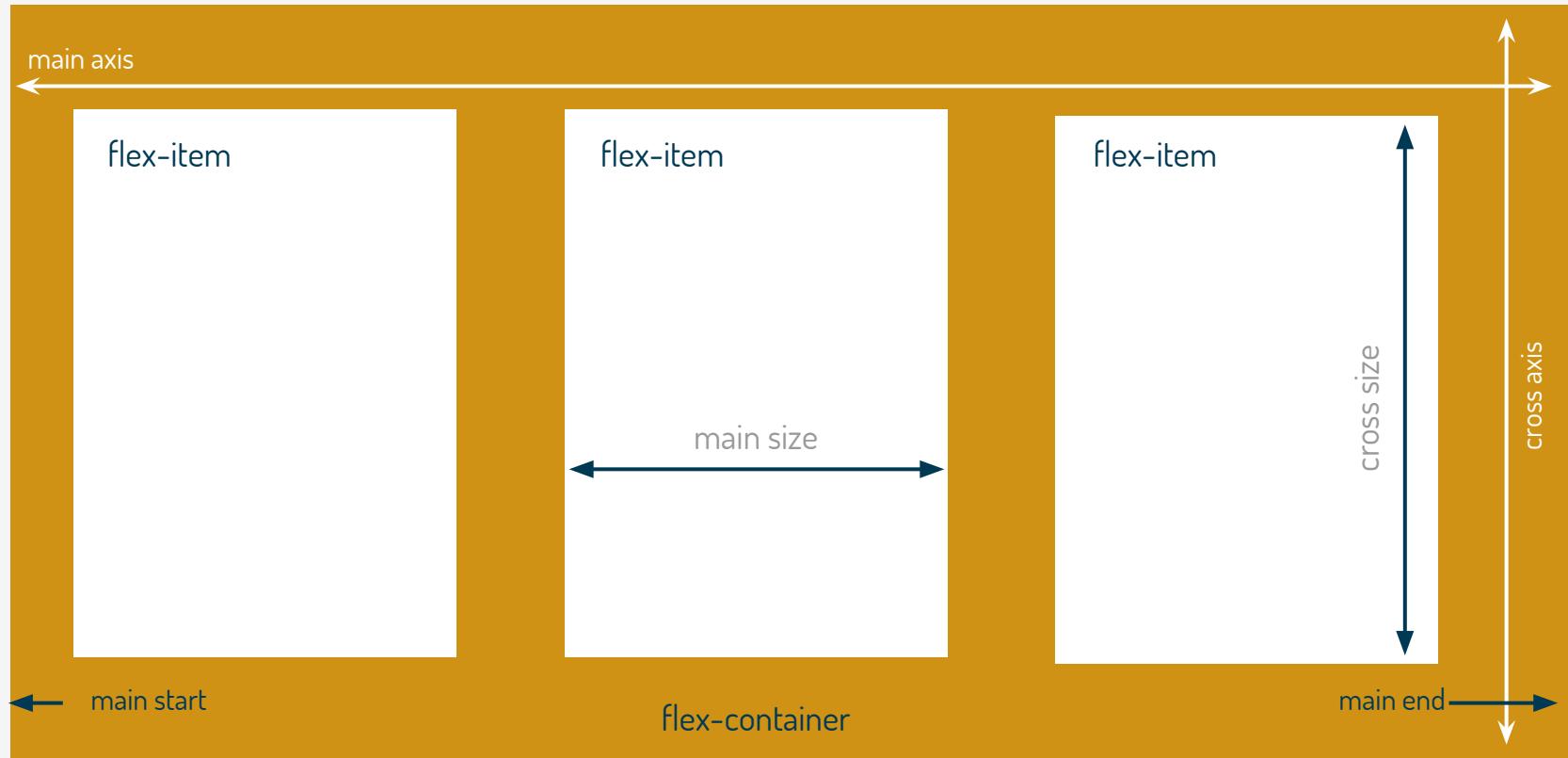


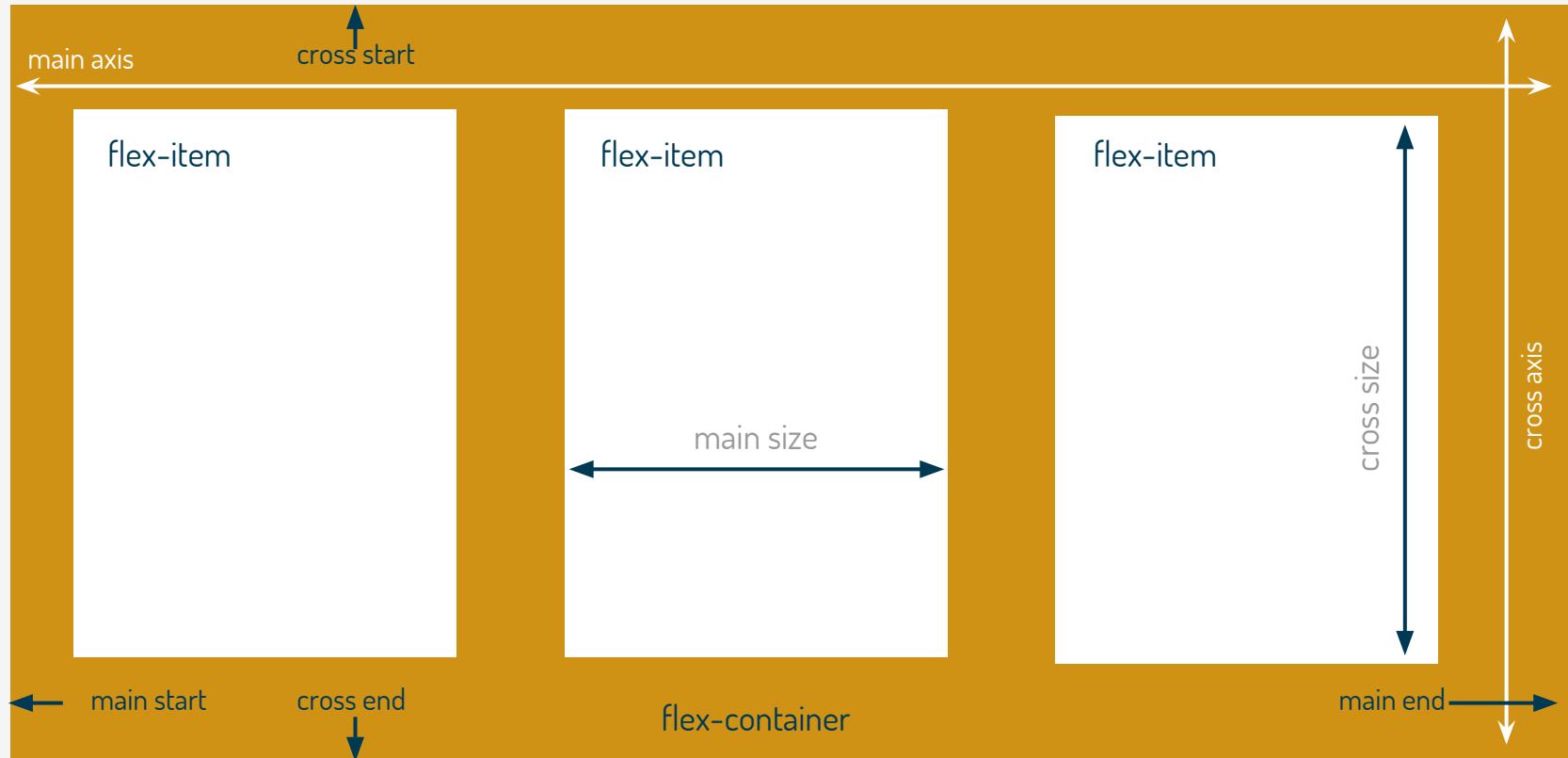
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Learning the Flexbox Properties



Flexbox Properties

flex-direction

flex-wrap

flex-flow

justify-content

align-items

align-content



Flexbox Properties

flex-direction

order

flex-wrap

align-self

flex-flow

flex-grow

justify-content

flex-shrink

align-items

flex-basis

align-content

flex



Flexbox Properties

flex container

flex-direction

flex-wrap

flex-flow

justify-content

align-items

align-content

flex item

order

align-self

flex-grow

flex-shrink

flex-basis

flex



Usage

To use flexbox layout just set the **display** property on the parent HTML element:



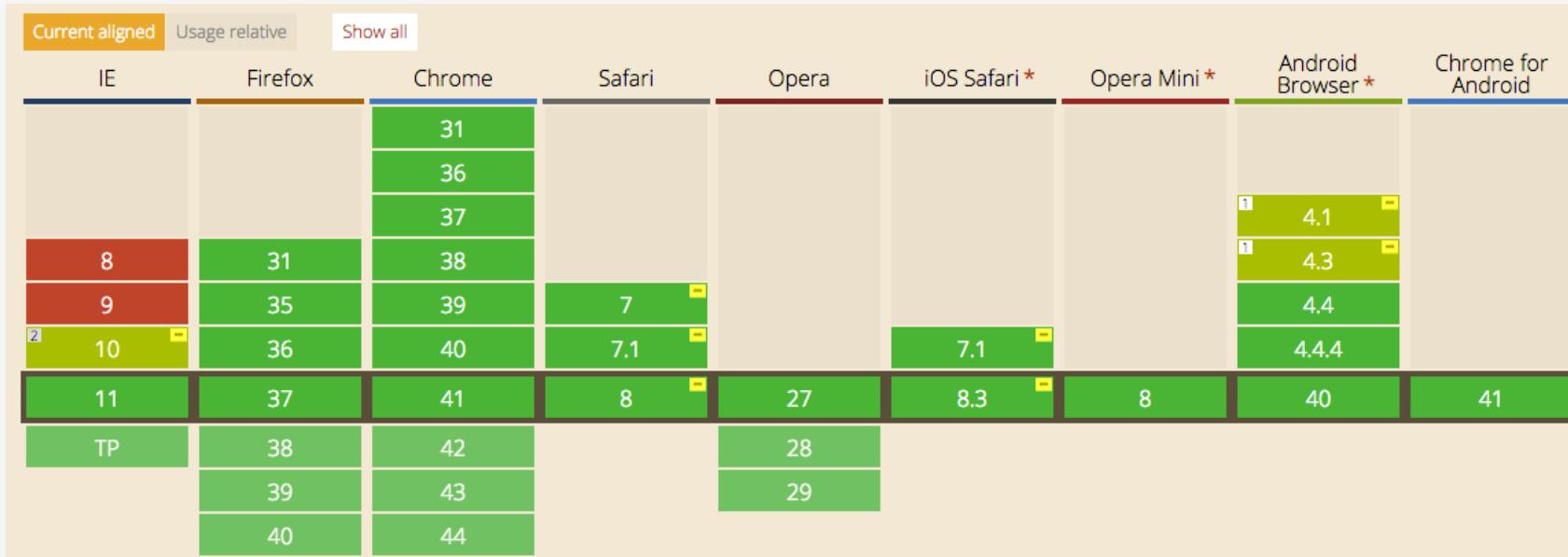
Usage

To use flexbox layout just set the **display** property on the parent HTML element:

```
.flex-container {  
  display: flex;  
}
```



Browser Support



Vendor Prefixes



```
.container {  
    display: -webkit-box;  
    display: -webkit-flex;  
    display: -ms-flexbox;  
    display: flex;  
    -webkit-box-pack: justify;  
    -webkit-justify-content: space-between;  
    -ms-flex-pack: justify;  
    justify-content: space-between;  
    -webkit-box-align: center;  
    -webkit-align-items: center;  
    -ms-flex-align: center;  
    align-items: center;  
    -webkit-flex-wrap: wrap;  
    -ms-flex-wrap: wrap;  
    flex-wrap: wrap;  
}
```

Autoprefixer

```
.flex-container {  
  display: flex;  
  justify-content: space-between;  
  align-items: center;  
  flex-wrap: wrap;  
}
```



Fallbacks



Fallbacks

```
<!doctype html>
<!--[if lt IE 7]><html class="no-js lt-ie9 lt-ie8 lt-ie7" lang=""> <![endif]-->
<!--[if IE 7]><html class="no-js lt-ie9 lt-ie8" lang=""> <![endif]-->
<!--[if IE 8]><html class="no-js lt-ie9" lang=""> <![endif]-->
<!--[if gt IE 8]><!--> <html class="no-js" lang=""> <!--<![endif]-->
<!--[if lte IE 9]><!--><html class="no-js no-flexbox" lang=""> <!--<![endif]-->
||| <head>
```

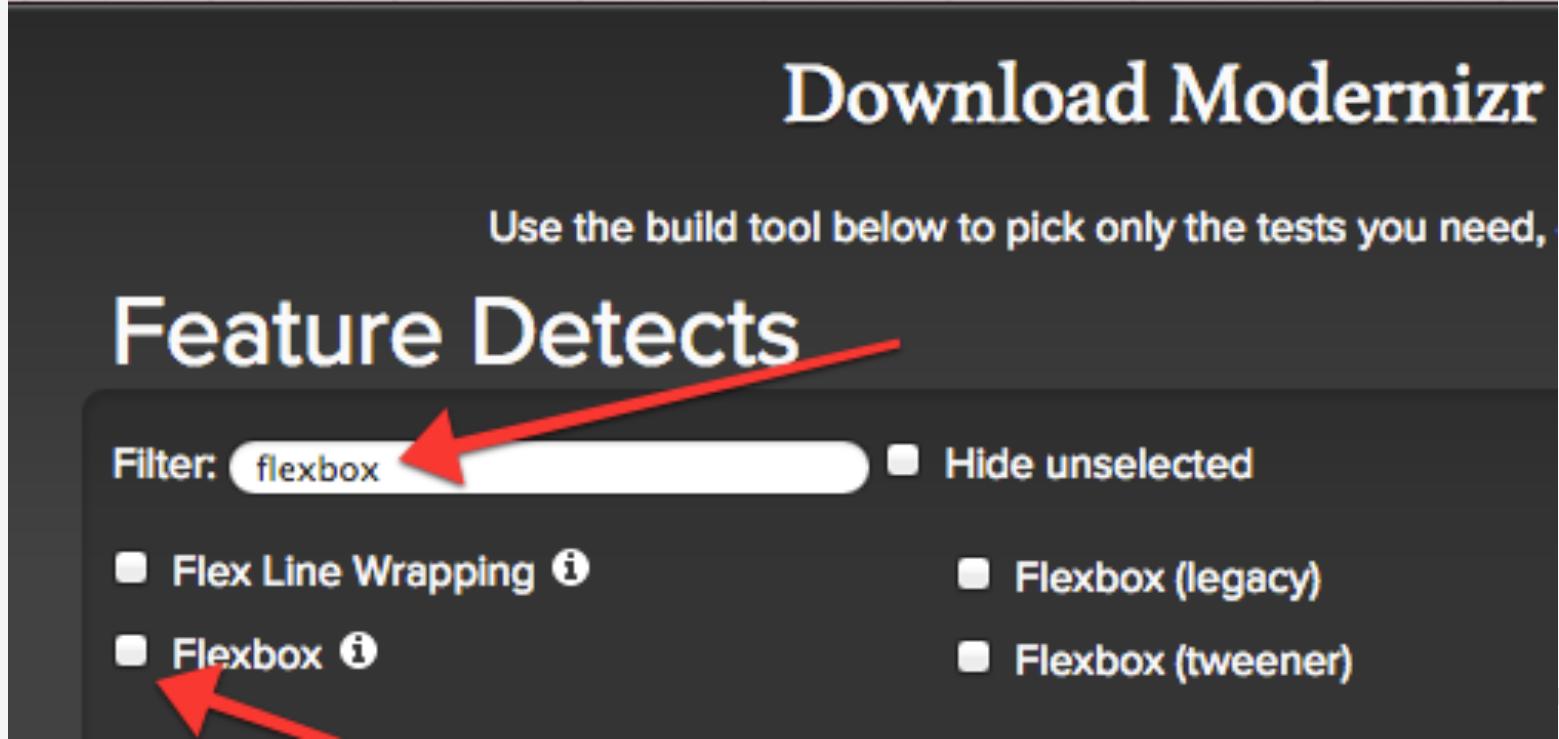
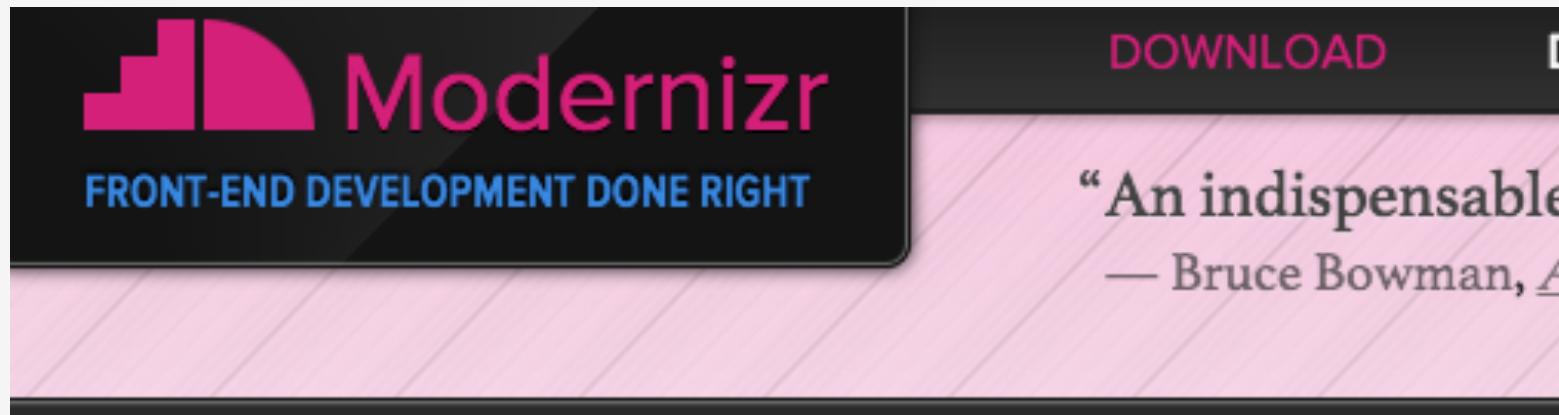


Fallbacks

```
.flex-container {  
  display: flex;  
  justify-content: space-between;  
  align-items: center;  
  flex-wrap: wrap;  
}  
  
.no-flexbox .flex-container .flex-item {  
  display: block;  
  float: left;  
}
```



Fallbacks



The screenshot shows the "Feature Detects" section of the Modernizr build tool. It features a search bar labeled "Filter: flexbox" with a red arrow pointing to it from the bottom left. To the right of the filter is a checkbox labeled "Hide unselected". Below the filter are two columns of feature detection checkboxes:

Feature	Description
<input type="checkbox"/> Flex Line Wrapping	Flexbox (modern)
<input type="checkbox"/> Flexbox	Flexbox (modern)
<input type="checkbox"/> Flexbox (legacy)	Flexbox (modern)
<input type="checkbox"/> Flexbox (tweener)	Flexbox (modern)

Fallbacks

```
.flexbox flex-container {  
  display: flex;  
  justify-content: space-between;  
  align-items: center;  
  flex-wrap: wrap;  
}  
  
.flex-container .flex-item {  
  display: block;  
  float: left;  
}
```



Demo



Resources

- A Complete Guide to Flexbox
- A Visual Guide to CSS3 Flexbox Properties
- Sass Flexbox mixins
- Flexbox practical examples (video)
- Flexbox tutorial (video)
- Flexbugs - curated list of flexbox issues and how to get around them (github)



Thank You!

Questions?



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