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□□□ drag
□□□□□□□

□□□□□ `div`
□□□□□

```
/* HTML □□□□
 <div class="dropzone">
   <div id="draggable" draggable="true">
     □□□□□□□
   </div>
 </div>
 <div class="dropzone"></div>
 <div class="dropzone"></div>
 <div class="dropzone"></div>
*/

// □□□□□
var dragged;

document.addEventListener('dragstart', function (event) {
  // □□□□□□□□
  dragged = event.target;
  // □□□□□□□□□□□□□□
  event.target.style.opacity = 0.5;
}, false);

document.addEventListener('dragend', function (event) {
  // □□□□□□□□□□□□□□□
  event.target.style.opacity = '';
}, false);

document.addEventListener('dragover', function (event) {
  // □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  event.preventDefault();
}, false);

document.addEventListener('dragenter', function (event) {
  // □□□□□□□□□□□□□
  // □□□□□□□□□□□□□□□□□□□
  if (event.target.className === 'dropzone') {
    event.target.style.background = 'purple';
  }
}, false);

document.addEventListener('dragleave', function( event ) {
```

```
  // □□□□□□□□□□□□□□□
  if (event.target.className === 'dropzone') {
    event.target.style.background = '';
  }
}, false);

document.addEventListener('drop', function( event ) {
  // □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
  event.preventDefault();
  if (event.target.className === 'dropzone') {
    // □□□□□□□□□□
    event.target.style.background = '';
    // □□□□□□□□□□□□□□
    dragged.parentNode.removeChild(dragged);
    event.target.appendChild( dragged );
  }
}, false);
```

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- □□
- □□□□□□□□□□□□□□□□□□□□□□ `dragstart` □ `dragend` □□□
- `dragenter` □ `dragover`
  □□
  □□
  □□

```
<div ondragover="return false">
<div ondragover="event.preventDefault()">
```

□□ `div` □□□□□□□□□□□□□□□□

DragEvent □□

□□□□□□□□ `DragEvent` □□□□□□□□□□□□□□ `MouseEvent` □□□ `Event` □□□

□□□□□□□□□ `DragEvent()` □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

```
new DragEvent(type, options)
```

`DragEvent()`
□□□

□□□□□□□□□□□□□□□□□□□□□□

```
target.addEventListener('dragover', function (e) {
  e.preventDefault();
  e.stopPropagation();
  e.dataTransfer.dropEffect = 'copy';
});
```

□□□□□□□□□□□□□□ `drop` □□□□□□□□□□□□□□□

`dropEffect` □□□□□ `dragenter` □ `dragover` □□□□□□□□□□□□□□ `dragstart` □ `drag` □ `dragleave` □□□□□□□□□□□□□□□□□□□□

□□ `dropEffect`□□□ `effectAllowed`□□□□□□□□□ `none`□□□□□□□□□□□□ `drop`□□□

DataTransfer.files

`DataTransfer.files`□□□□□ FileList □□□□□□□□□□□□□

```
div.addEventListener('drop', function(e) {
  e.preventDefault();
  e.stopPropagation();

  var fileList = e.dataTransfer.files;
  if (fileList.length > 0) {
    var file = fileList[0];
    var reader = new FileReader();
    reader.onloadend = function(e) {
      if (e.target.readyState === FileReader.DONE) {
        var content = reader.result;
        div.innerHTML = 'File: ' + file.name + '\n\n' + content;
      }
    }
    reader.readAsBinaryString(file);
  }
});
```

DataTransfer.types

`DataTransfer.types` MIME
`text/plain`

`dataTransfer` `drop`

```
function contains(list, value){
  for (var i = 0; i < list.length; ++i) {
    if(list[i] === value) return true;
  }
  return false;
}

function doDragOver(event) {
  var isLink = contains(event.dataTransfer.types, 'text/uri-list');
  if (isLink) event.preventDefault();
}
```

DataTransfer.items

`DataTransfer.items` □□□□□□□□□□□□□□□□□□ DataTransferItemList □□□□□□□□□□□□□□□□□□□□□□□□ DataTransferItem □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

DataTransferItemList □□□□□□□□□□□□□□□

- `length` □□□□□□□□□
- `add(data, type)` □□□□□□□□□□□□□□□□□ `text/html` □ `text/plain` □□□□□□□□□□
- `add(file)` □ `add` □□□□□□□□□□□□□□□□□□□□□□
- `remove(index)` □□□□□□□□□□□□
- `clear()` □□□□□□□□□

DataTransferItem □□□□□□□□□□□□□□□

- `kind` □□□□□□□□□□ `string` □□ `file` □□
- `type` □□□□□□□□□□□□□ MIME □□□
- `getAsFile()` □□□□□□□□□□□□□□□□□□□□□□□ `null` □
- `getAsString(callback)` □□□□□□□□□□□□□□□□□□□□

```
event.dataTransfer.setData('text/plain', 'Text to drag');
```

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□□□ `text/plain`
□□□□□□□□□□□□□□□□□□□□□□□□□□□□ `dataTransfer`
□□□

□□ `dataTransfer`
□□□□□□□□□□□

```
<div draggable="true">
  aaa
</div>
```

□□□□□□□□□□□ `<div>`□□□□□□□□□□□□□ `aaa`□

□□ `setData`□□□□□□□□□□□□□□□□

```
<div
  draggable="true"
  ondragstart="event.dataTransfer.setData('text/plain', 'bbb')"
>
  aaa
</div>
```

□□□□□□□□□□□□□□□□ `bbb`□□□□ `aaa`□

□□□□□□□□□□□□□□□□□□ `text/plain`
□□□□□□□□□□□□□□□□□□□

```
dt.setData('text/uri-list', imageurl);
dt.setData('text/plain', imageurl);
```

□□□□□□□□□□□□□□□

```
var dt = event.dataTransfer;
dt.setData('application/x-bookmark', bookmarkString);
dt.setData('text/uri-list', 'http://www.example.com');
dt.setData('text/plain', 'http://www.example.com');
```

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```
  event.preventDefault();
}
```

□□□□□□ `getData` □□□□□□□□□□□□□□□□□□□□□□

□□□□□□ `URL` □□□□□□□□□□□□□□

```
var link = event.dataTransfer.getData('URL');
```

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```
function doDrop(event) {
  var types = event.dataTransfer.types;
  var supportedTypes = ['text/uri-list', 'text/plain'];
  types = supportedTypes.filter(function (value) { types.includes(value) });
  if (types.length) {
    var data = event.dataTransfer.getData(types[0]);
  }
  event.preventDefault();
}
```

DataTransfer.clearData()

`DataTransfer.clearData()`
□□□□□□□□□□□□□□□□□□□

`DataTransfer.setDragImage()` □□□□