

LED(pin\_spec, ...,  
pin\_factory=None)

pin\_factory == None?

yes

no

self.pin\_factory = Device.pin\_factory

self.pin\_factory = pin\_factory

self.pin = self.pin\_factory.pin(pin\_spec)



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graph TD; A[LED(pin_spec, ..., pin_factory=None)] --> B{pin_factory == None?}; B -- yes --> C[self.pin_factory = Device.pin_factory]; B -- no --> D[self.pin_factory = pin_factory]; C --> E[self.pin = self.pin_factory.pin(pin_spec)]; D --> E;
```

The flowchart illustrates the initialization logic for the LED class. It begins with a function call LED(pin\_spec, ..., pin\_factory=None). A decision diamond checks if pin\_factory is None. If yes, it assigns self.pin\_factory = Device.pin\_factory. If no, it assigns self.pin\_factory = pin\_factory. Both paths converge to the final step: self.pin = self.pin\_factory.pin(pin\_spec).