Eurobot 2009

Rules complement about

Constructions validity

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Abstract

This document provides complementary information about the validity of constructions and construction elements inside.

It is provided as a first answer to questions asked in the forums, and its content will be merged into the next edition of the rules document.

The rules

We have tried to clarify the way to determine if an element will be consider as valid or not by using concrete situations illustrated by pictures and commented when needed.

As stated in the published document, the rules are :

Rule 1.   a column element directly laying on the ground is valid **if and only if** it is fully inside the construction areas

Rule 2.   a column element stacked on an item *(other column element or lintel)* is valid **if and only if** this item is valid itself

Rule 3.   lintels must be **directly** supported by at least **two valid items** *(be they column elements or lintels), d*irectly meaning *directly in contact* with the lintel

Applied to various cases, this gives the statuses illustrated by the following pictures.

The red and green colors used in these pictures have nothing to do with teams' ones, but represent the validity statuses (green = valid item, red = invalid item).
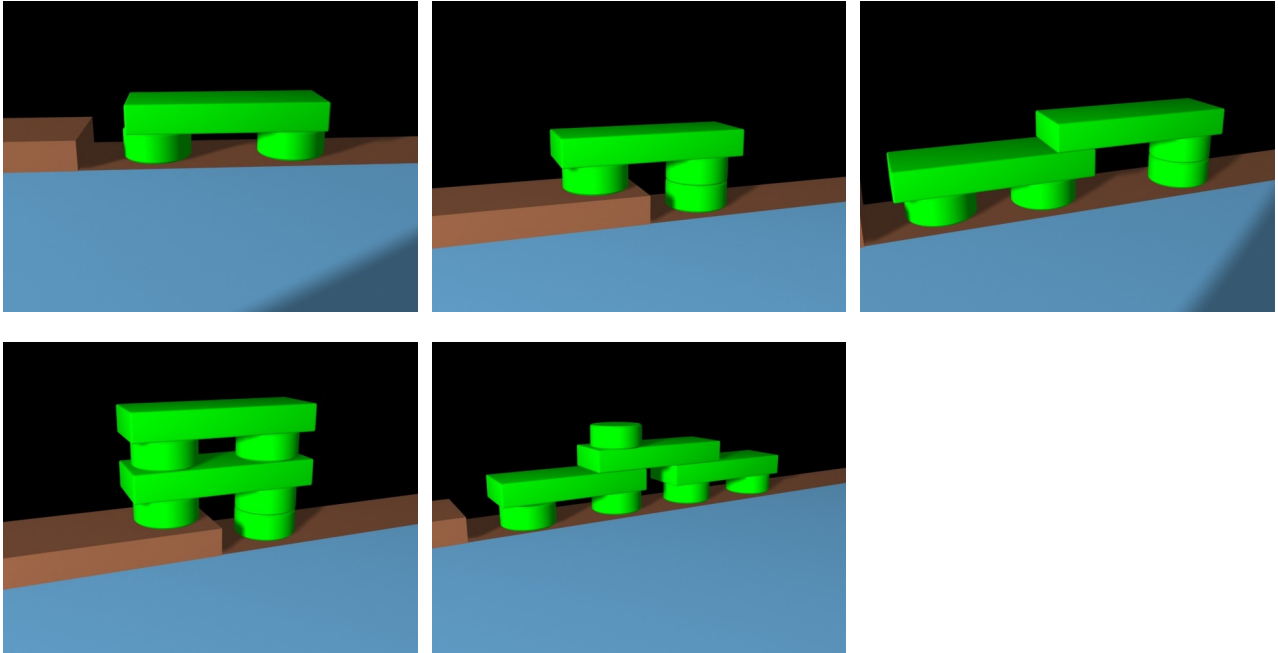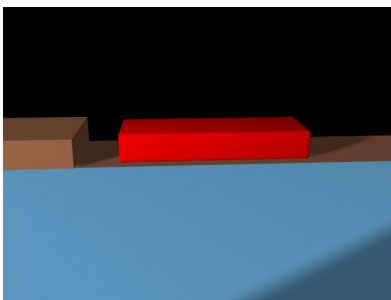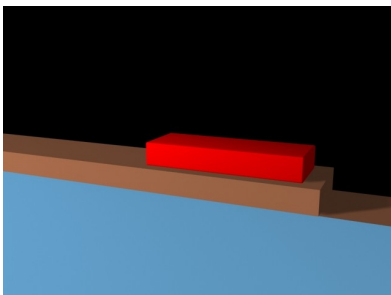
Valid configurations

Here are some valid configurations, from the simplest ones to most complicated.
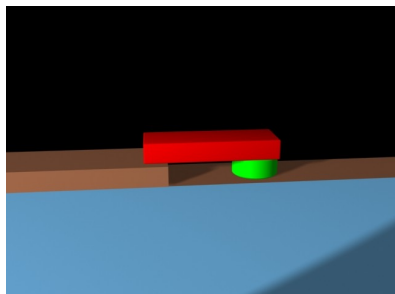

Invalid configurations

This lintel is not valid, although fully inside the construction area since it does not comply with rule 3 : it is not supported by 2 items
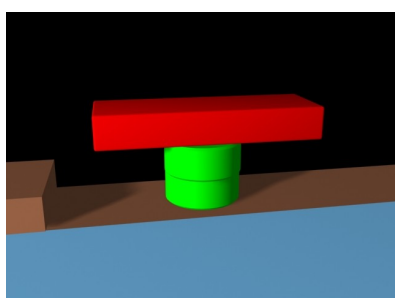

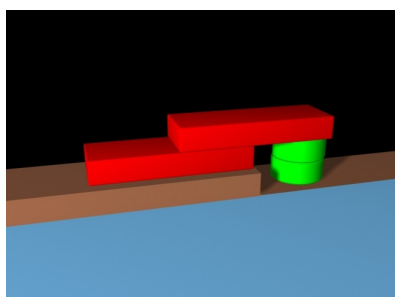This lintel is not valid, for the same reason as example 1 above.

This lintel is not valid, since it is supported by one valid item only.

The column element is valid since fully inside the construction area.
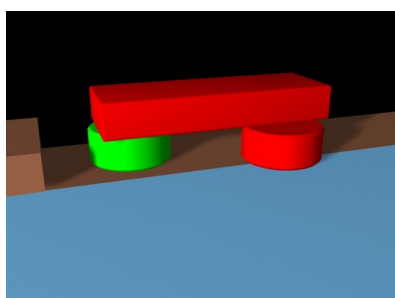

This lintel is not valid since it does not comply with rule 3 : it is not **directly** supported by 2 valid items, since the bottom most column element is not is direct contact with it.
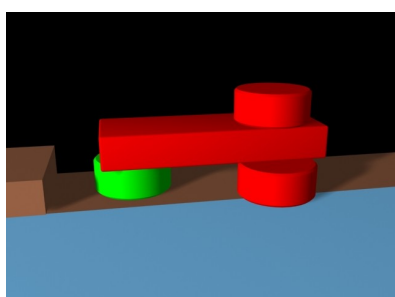

The leftmost lintel is not valid since lying directly on the construction area surface.

Although supported by two different items, the topmost lintel is not valid either, since one of its supports is itself invalid.

The right column element is invalid, since not fully inside the construction area.

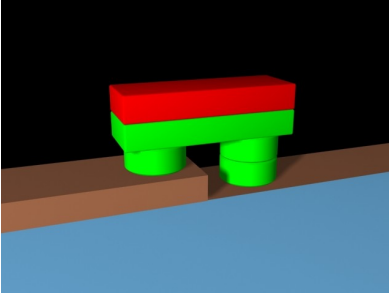The lintel is thus not valid since one of its supports is invalid.

The status of layers 1 and 2 items is the same as above.

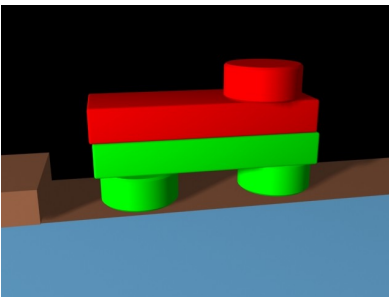The topmost column element is invalid since on top of an invalid item.

Columns elements are valid since fully inside the construction area.

First lintel is valid since directly supported by two valid items.

Second lintel is invalid because not fulfilling rule 3 : it is not directly supported by two distinct items but by a single lintel.

The topmost column element is invalid since on top of an invalid item.