立体視座標入力による三次元設計システムの開発

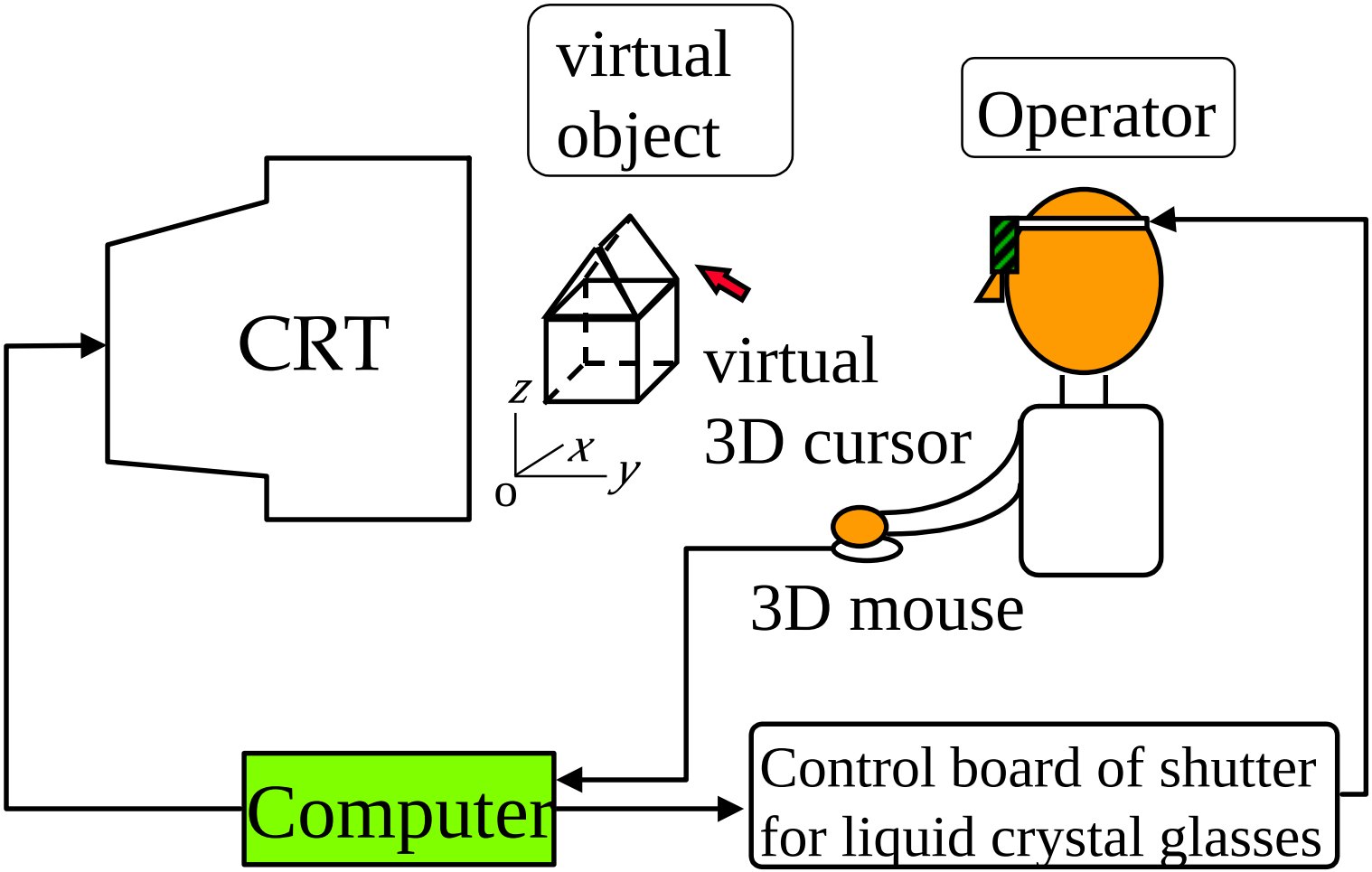
若松秀俊　　〇本間　達

東京医科歯科大学

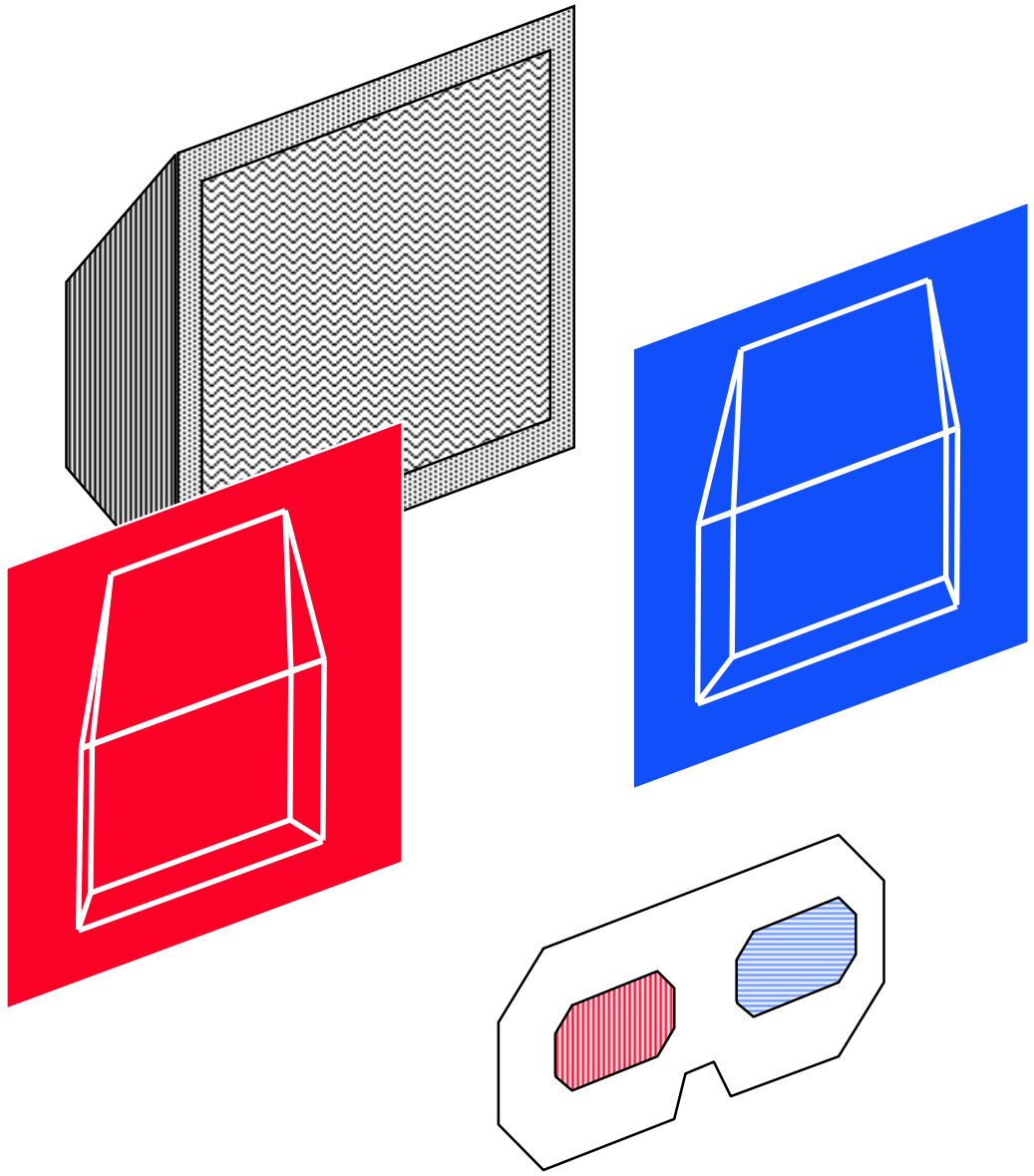
目　的

- 両眼立体視を利用した立体視可能な設計システムの構築

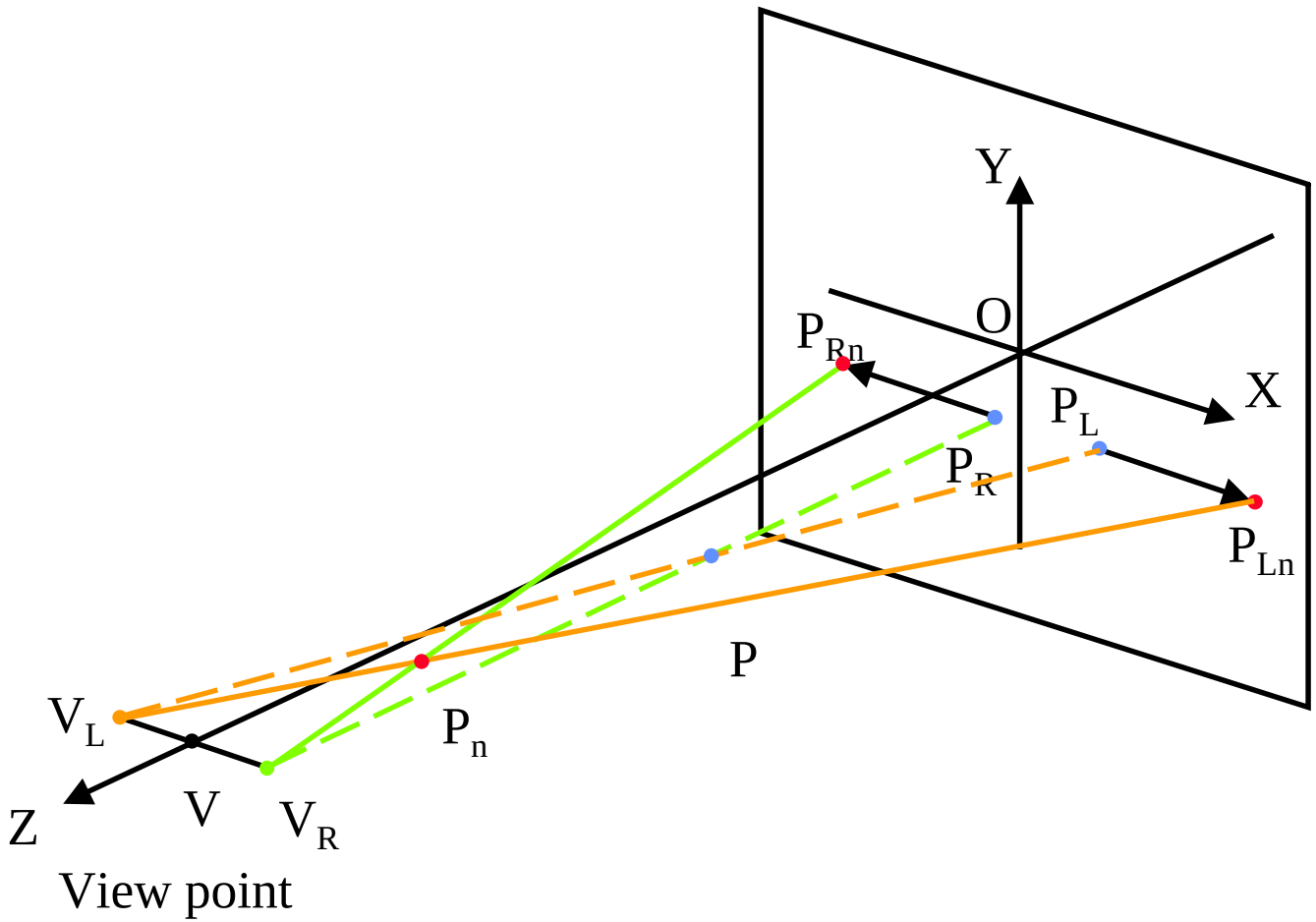
- 立体設計システムの有効性の検討



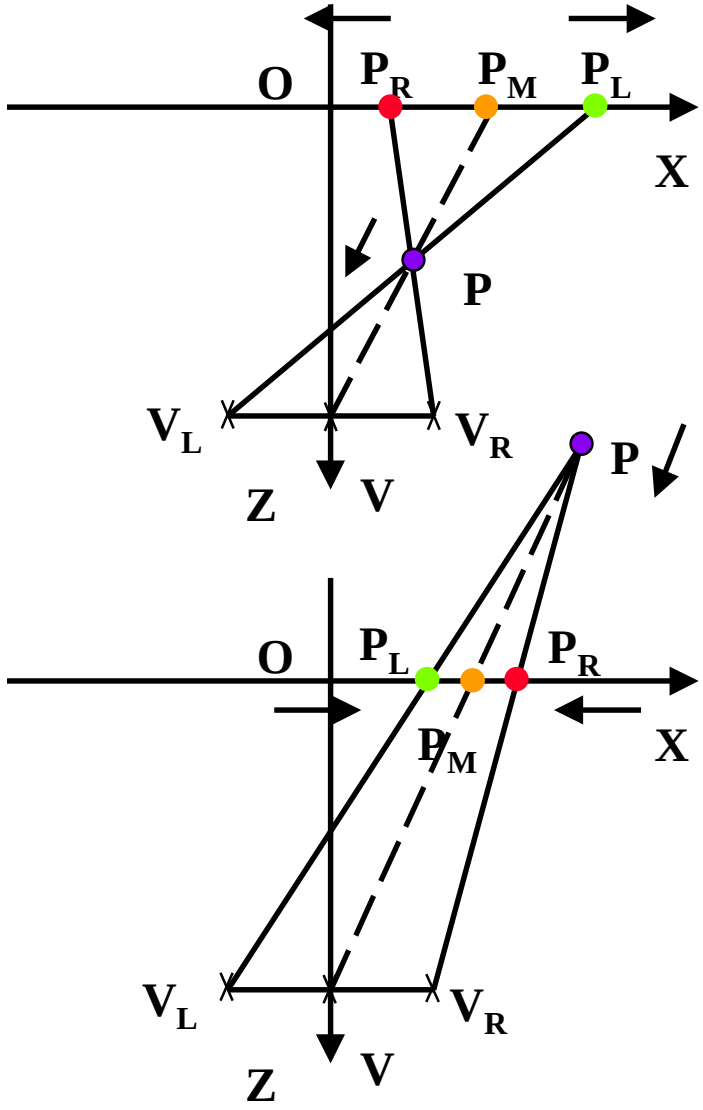
CAD-system for drawing stereoscopic image

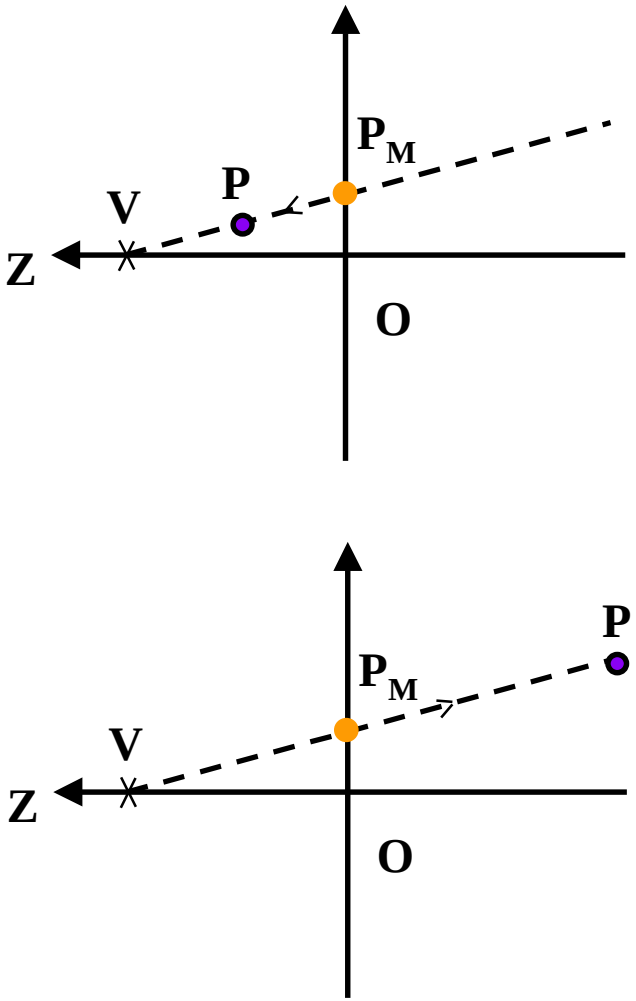


Principle of the liquid crystal glasses



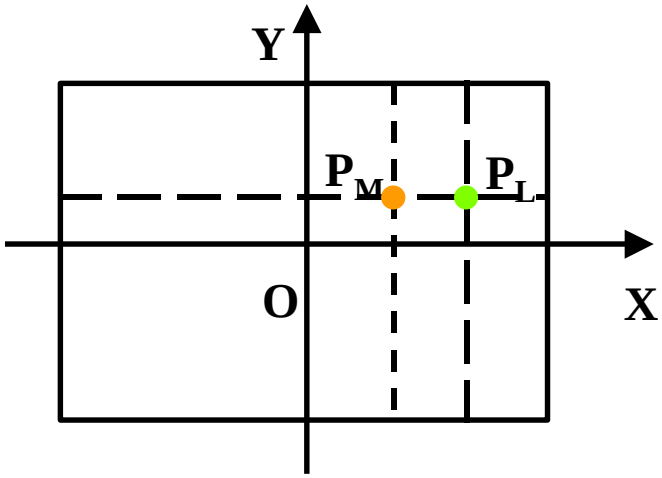
Stereoscopy of an image object by binocular parallax

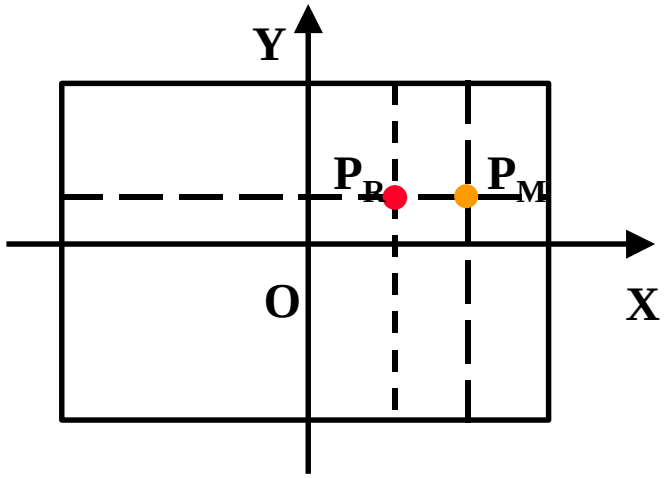


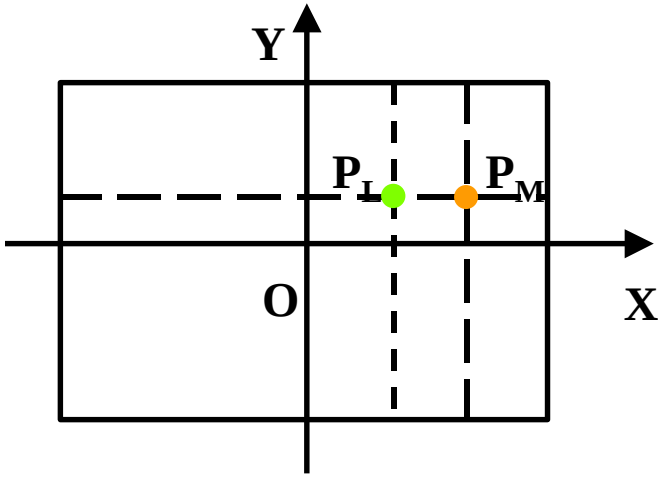


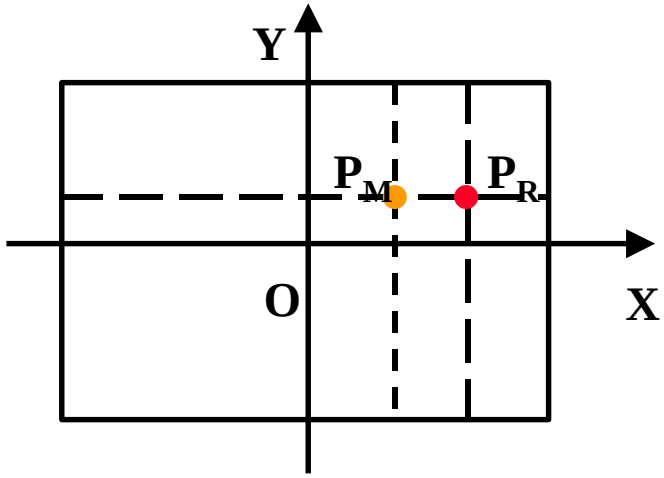
seen from Y-axis　　**seen from X-axis**

Principle of stereoscopy of a mouse cursor









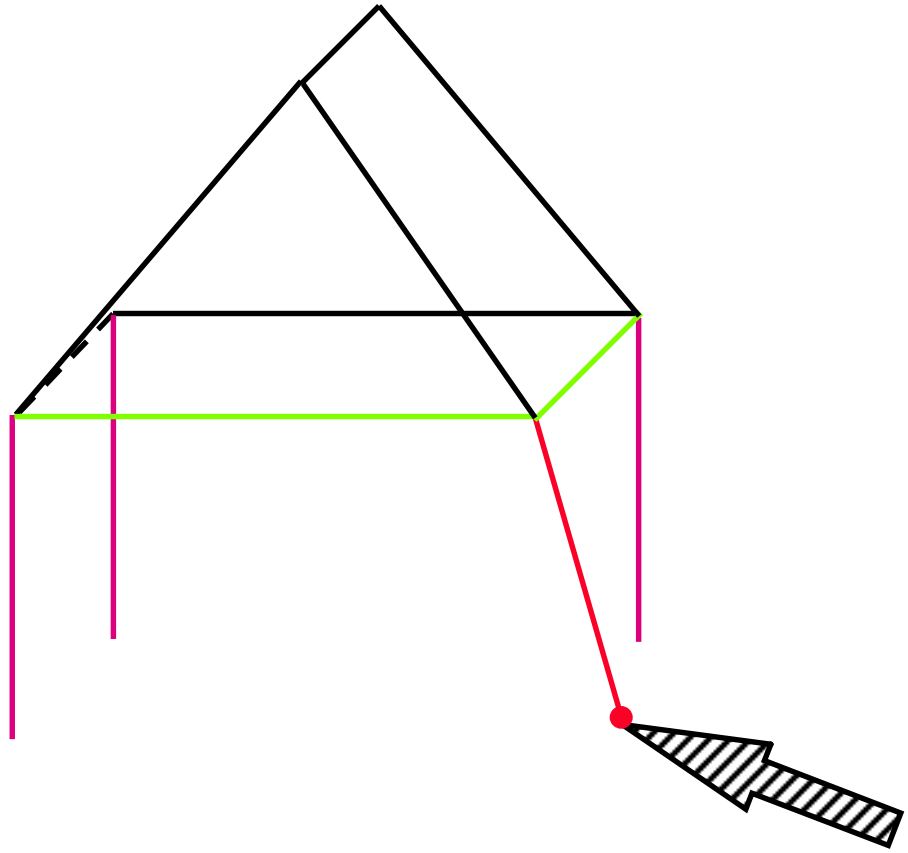
seen from Z-axis (for left eye)

seen from Z-axis (for right eye)

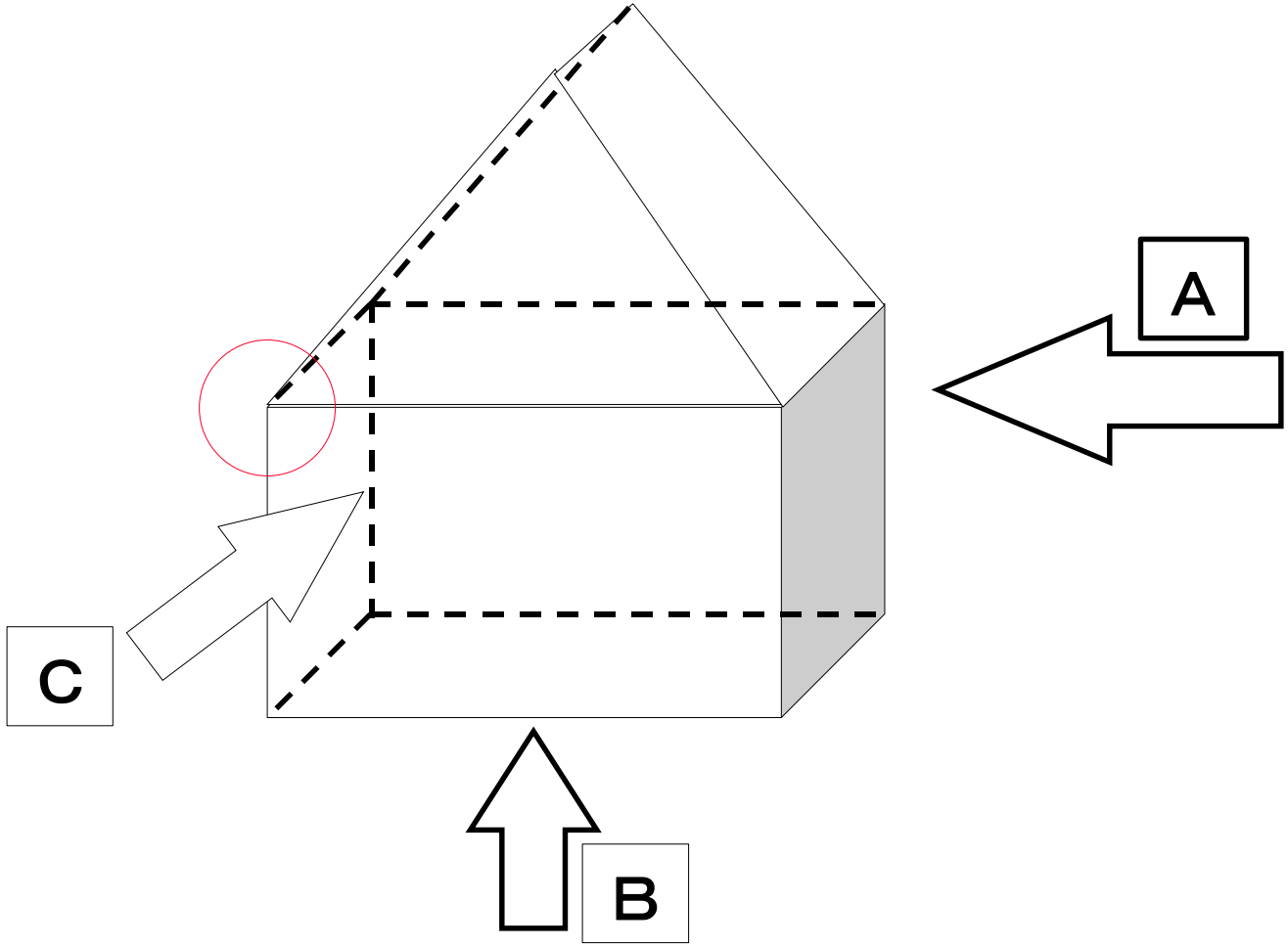
Principle of stereoscopy of a mouse cursor

立体視設計システムの機能

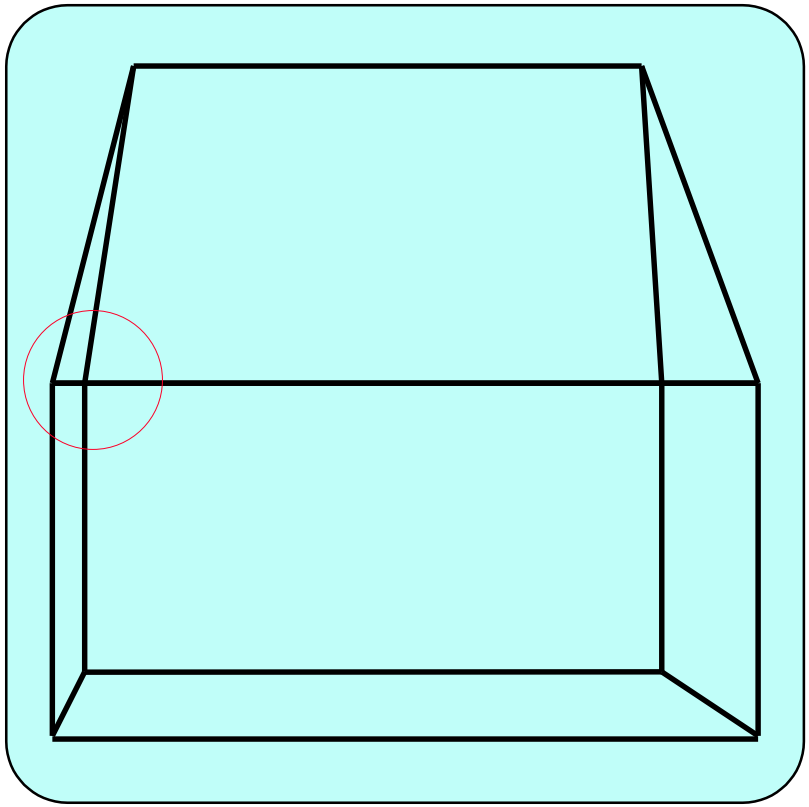
- 自動座標入力と設計・表示
- 座標回転と設計状況の監視
- 立体形状の変更
- 部品形成のための設計図の出力



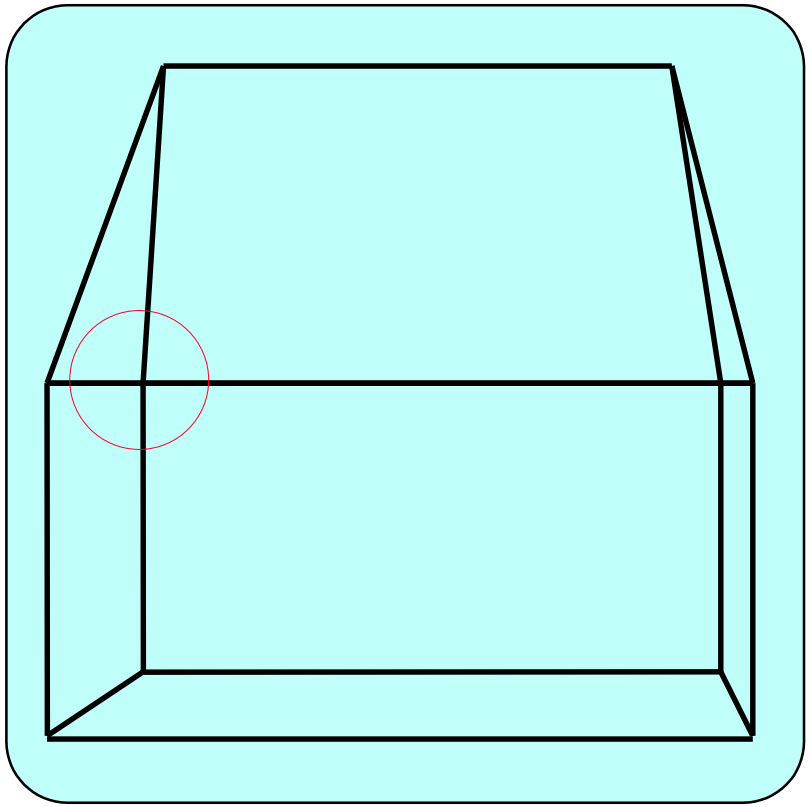
Synthesis of an object on assignment of 3D coordinate by an input device



A rough sketch of the object given as an example

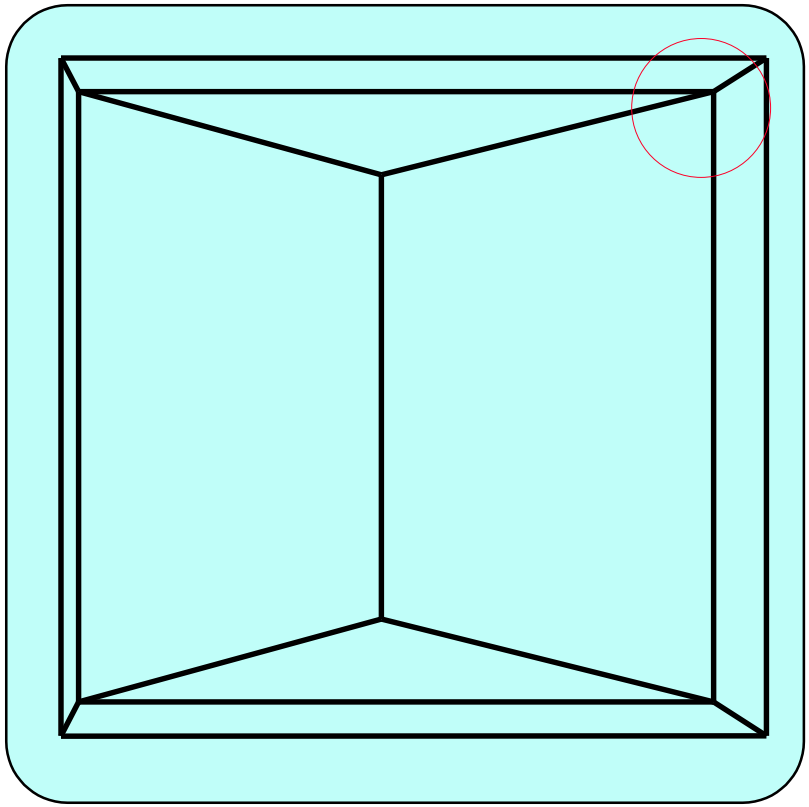


seen from A
(for left eye)

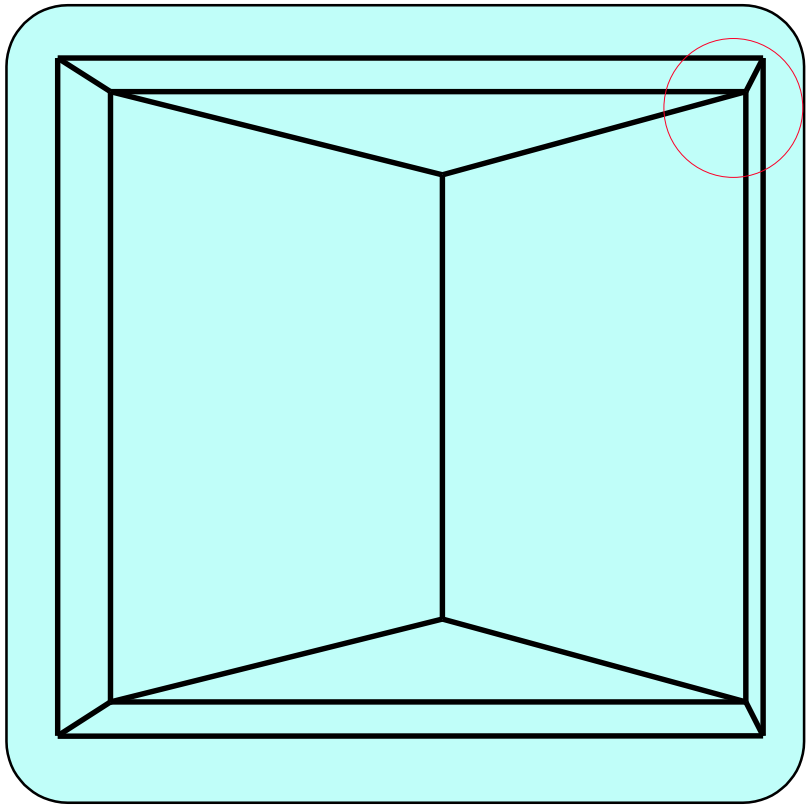


seen from A
(for right eye)

Projection of a designed object on the CRT-plane

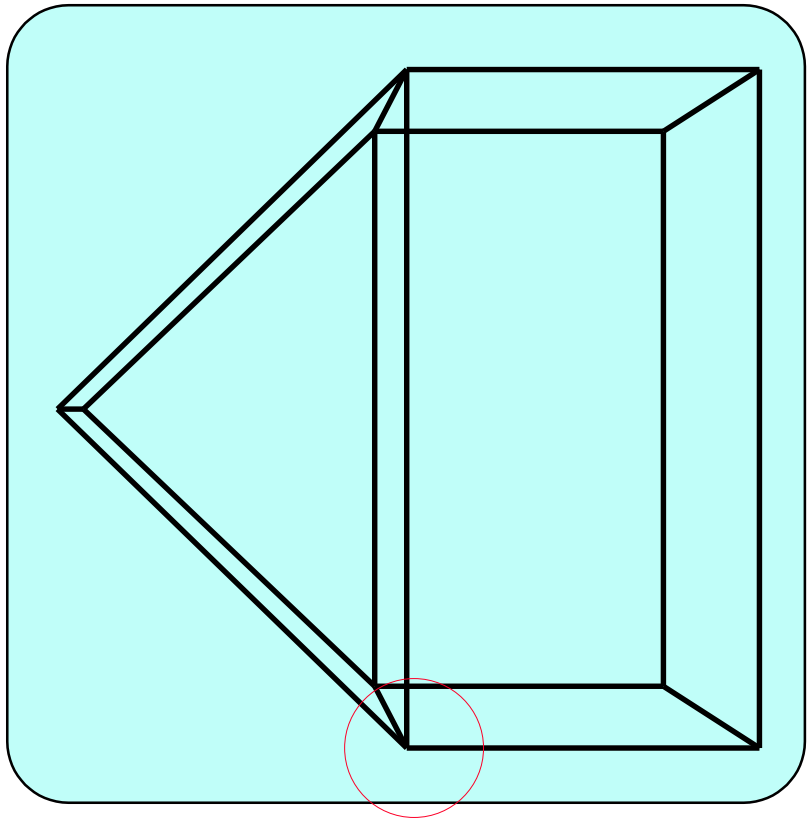


seen from B
(for left eye)

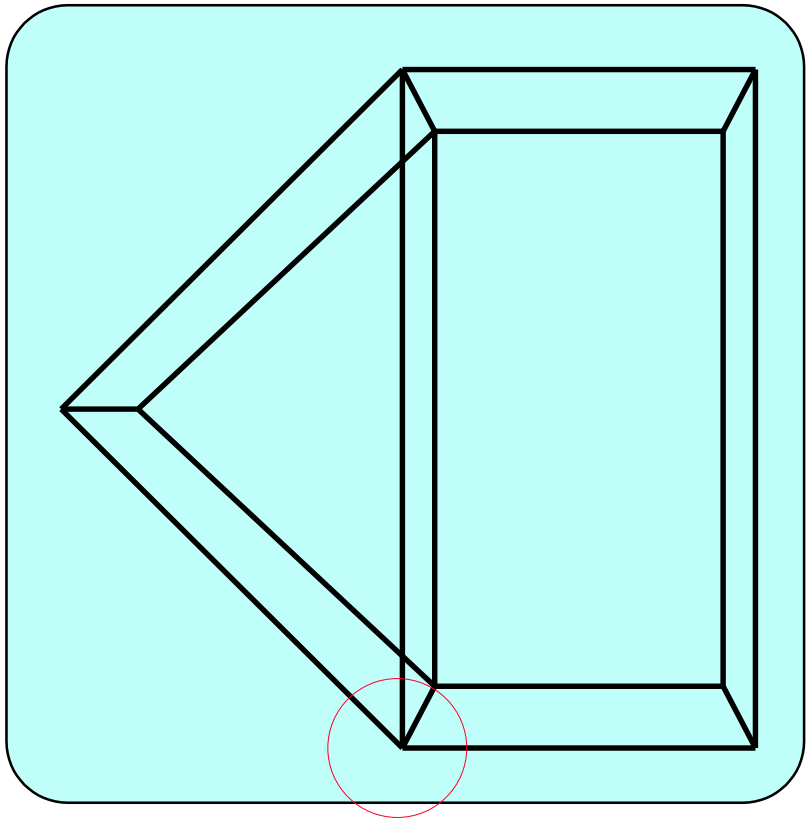


seen from B
(for right eye)

Projection of a designed object on the CRT-plane

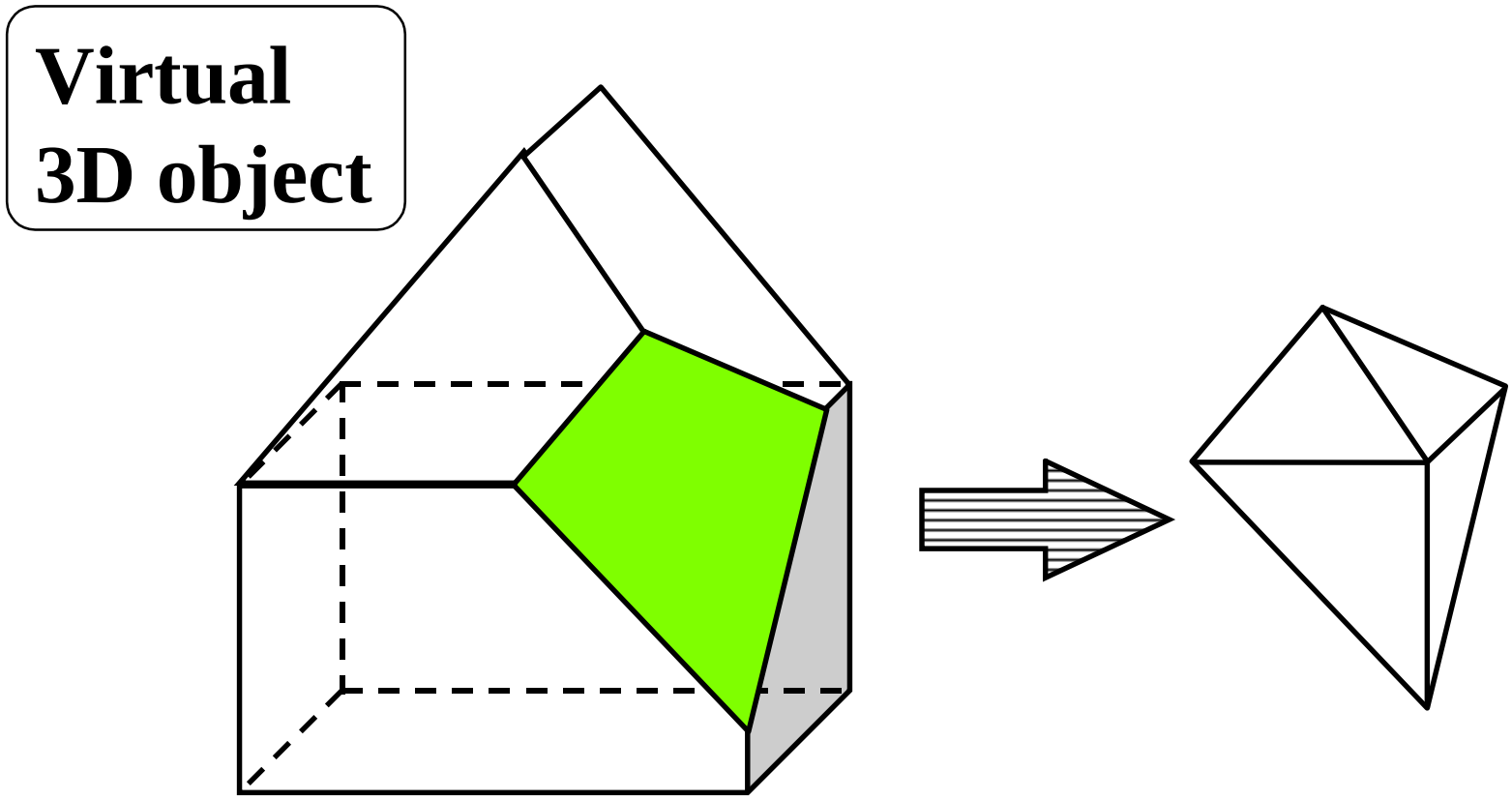


seen from C
(for left eye)

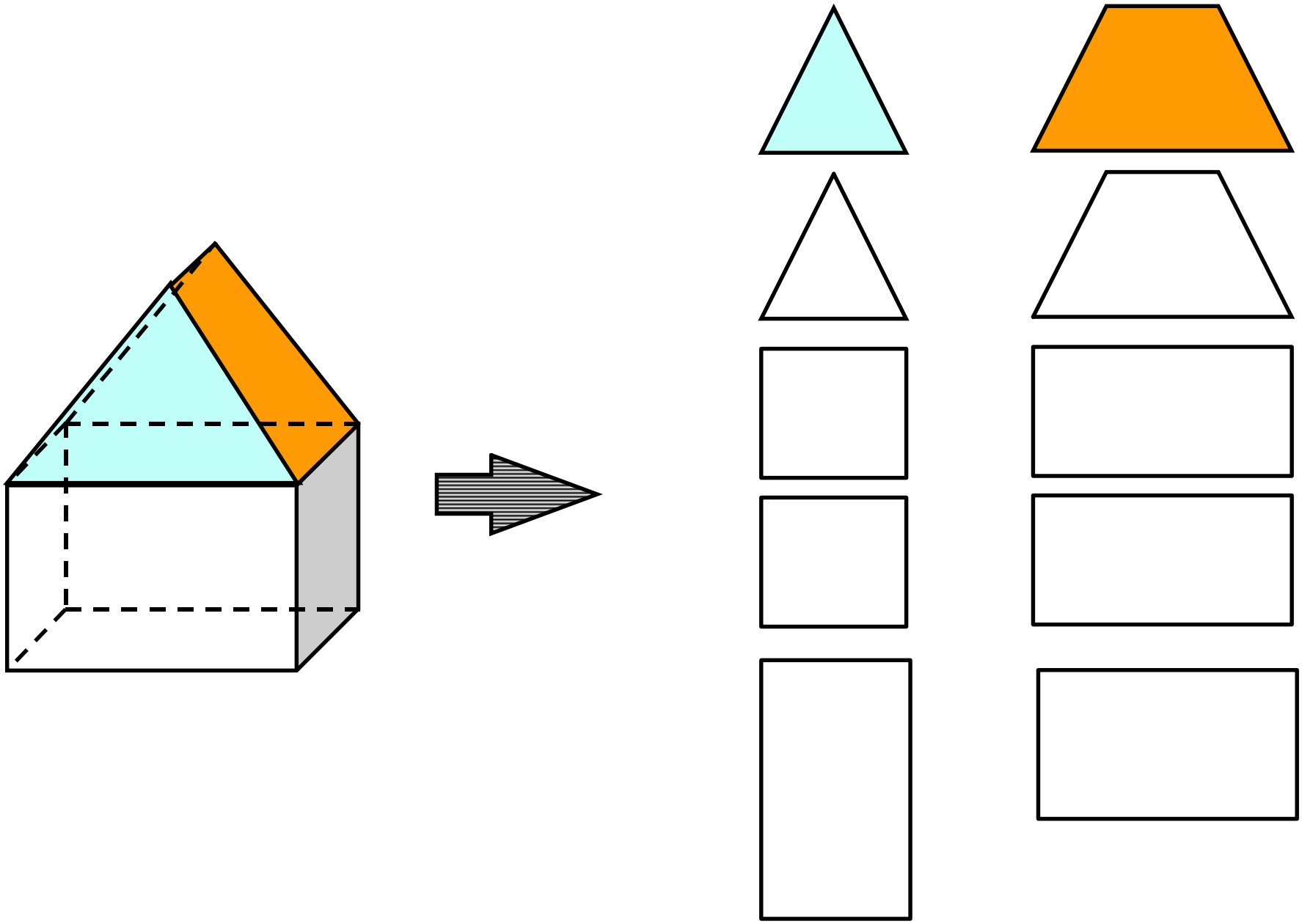


seen from C
(for right eye)

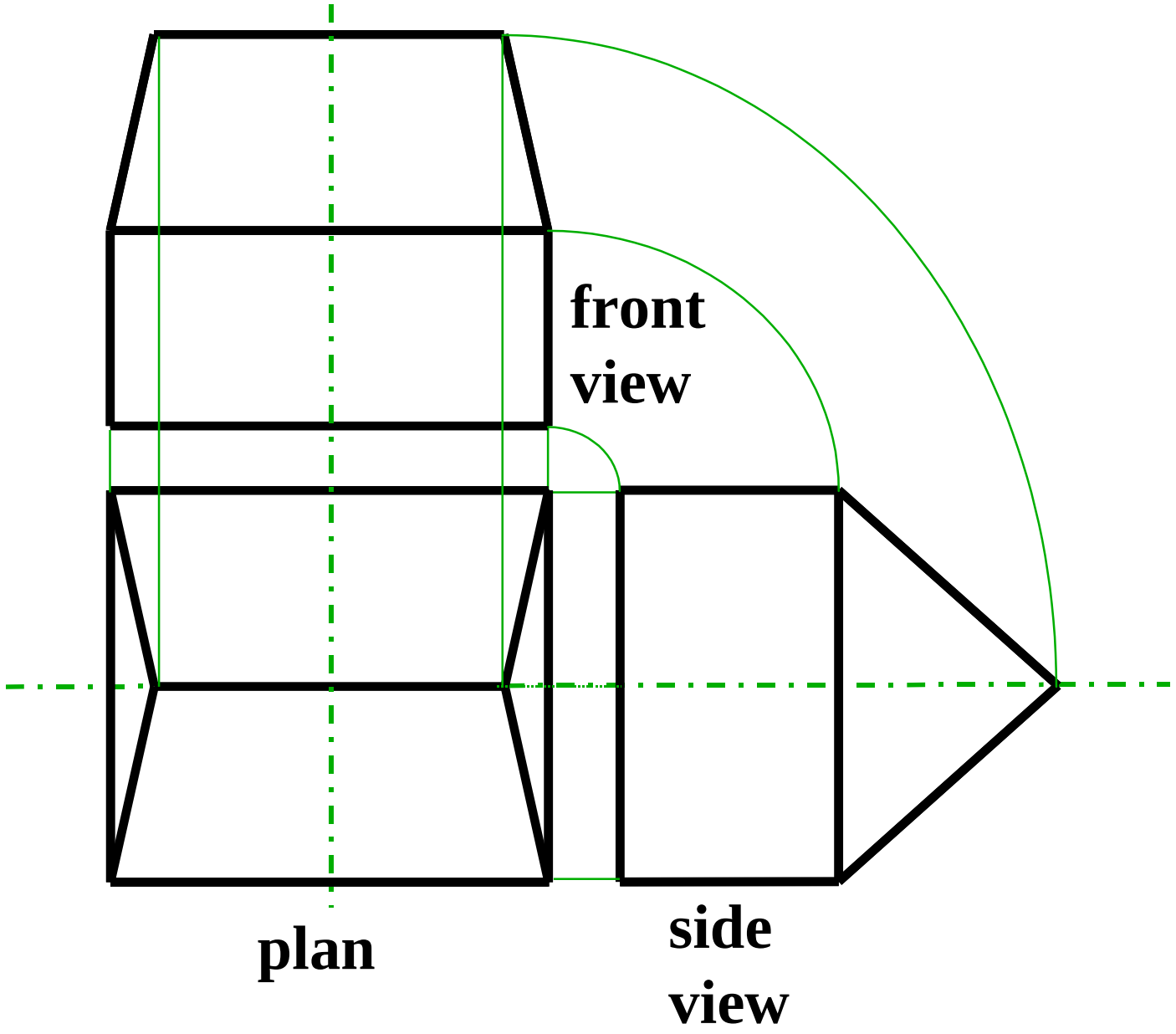
Projection of a designed object on the CRT-plane



Partial cutting-off of an object to be designed



Parts obtained from stereoscopic design



Three basic projections obtained from the structure of a designed object

まとめ

- 両眼立体視を用いて立体視可能な三次元設計システムを開発した

- 立体設計システムの機能を確認した

若松秀俊，本間達

立体視座標入力による
三次元設計システムの開発

電気学会，1997年8月

電子・情報・システム部門大会講演論文集

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