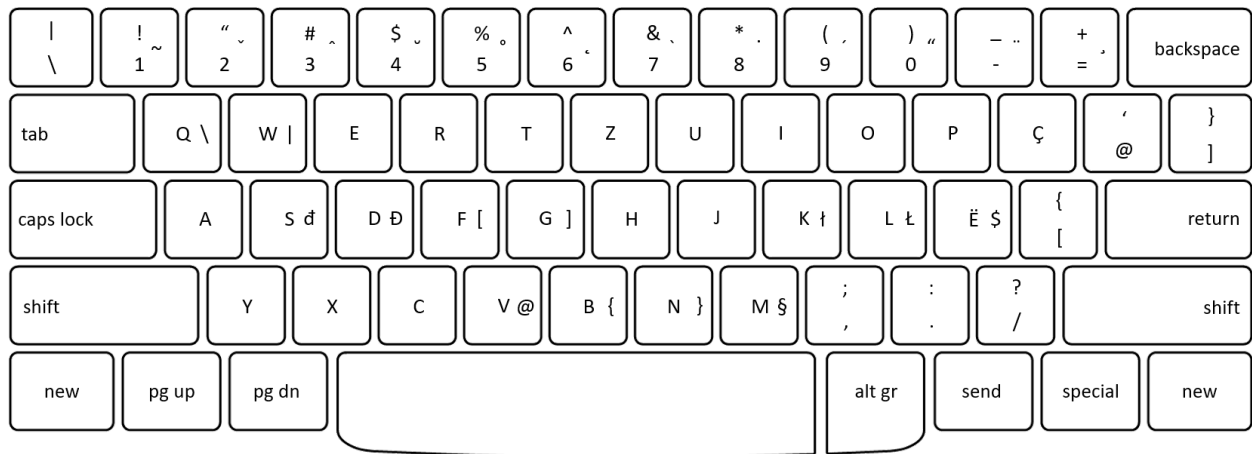


## Counter Strike Example Controls

<https://learn.ontariotechu.ca/courses/29725/assignments/163621>

- THUMB = MOVEMENT Direction and strength ( replaces WASD and Shift)
  - For games that do not natively support analog input for movement, a modifier can be set up (i.e. auto holding [shift] when the stick mag is < 0.5 for a walk button)



### Primary Keys( Combat / Movement)

- ~~Walk Button~~
- Jump (ring)
- Crouch (pinky)
- Interact button (middle)
- Reload (index)

### Secondary Keys( Requires fingers to relocate)

- 1,2,3,4,
  - Separate row of buttons, further up the controller

### Tertiary Keys( Out of combat)

- Escape/Menu
- Drop Weapon

- Tab Menu

Radical design ideas:

- Larger scale device, includes all listed buttons (primary, secondary, tertiary)
- Smaller device, akin to a trackball mouse, includes primary and secondary buttons
  - Flat analog stick, held with thumb at an angle
  - Diagonal analog stick, fitted to thumb angle when holding the controller

Needs	Technical Requirements
Controller might move around	Some way to affix the device to a desk/surface. Alternatively have a heavier weight.
Comfortable hand position	Ergonomics that funnel the hand into an intended, comfortable position.
Sizing	Fingers should be able to rest on all buttons at a time, regardless of hand size
Physical feedback for buttons	Make buttons with mechanical key switches
Enough buttons to play most games	Configurable keymaps, maybe additional macro keys?
Support for games that don't natively support controller	Must be able to interpret analog inputs as Keyboard/Mouse inputs (analog->digital)
Buttons must not activate on accident	Buttons will have resistance
Directional movement must be precise and reflect the players intended input	Allow the player to calibrate the control stick so whatever feels like forward to them, is forward.
Plug and Play	Use controller button layout by default. ABXY L1,L2,R1,R2 . L-Stick Some game-specific layout presets

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