PS Quartet No.1

For Game Controllers and Computers

Joo Won Park

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I. Score

II. Instructions

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12-16 measures

G

C
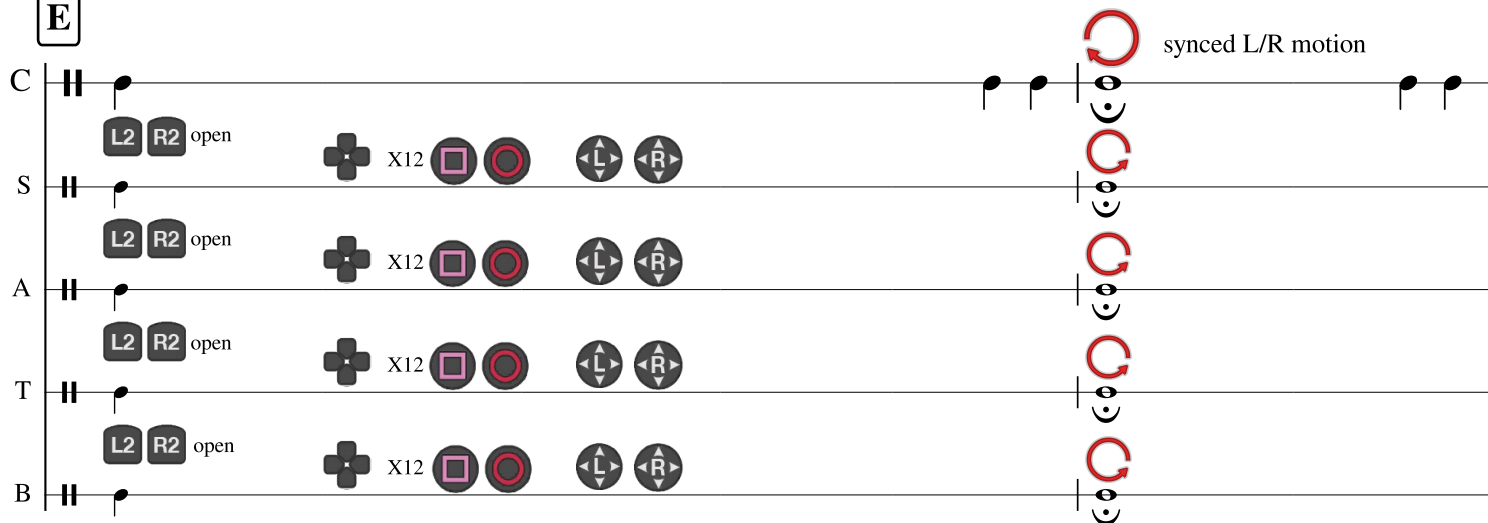
S — solo, freely improvise — keep soloing

A — suppport the soloist with occasional timbre change — L2 R2 close

T — suppport the soloist with occasional timbre change — L2 R2 close

B — suppport the soloist with occasional timbre change — L2 R2 close

12-16 measures

H

bass drum beat dropped by tenor

C

S — freely improvise

A — L2 R2 open   freely improvise

T — OPTIONS L2 R2 open   freely improvise (also drop the beat)

B — L2 R2 open   freely improvise — 16th notes

12-16 measures

I

bass drum gradually fades out

C — improvise circular movement

S — 16th notes — sync L/R with the conductor

A — 16th notes — sync L/R with the conductor

T — OPTIONS 16th notes — sync L/R with the conductor

B — sync L/R with the conductor
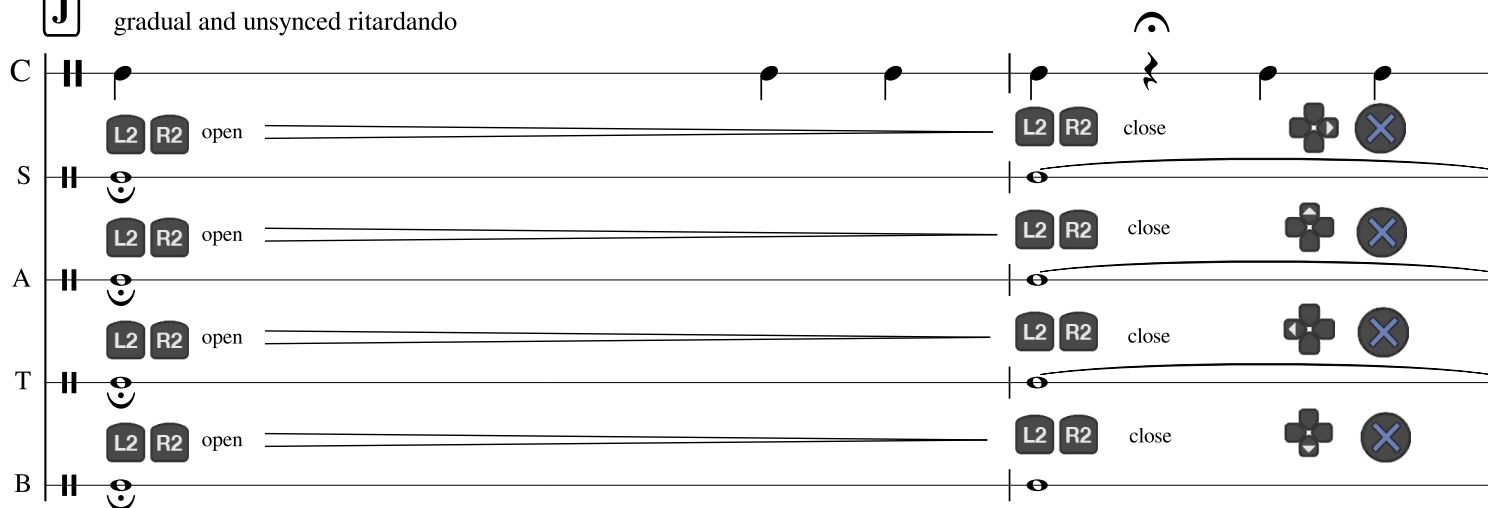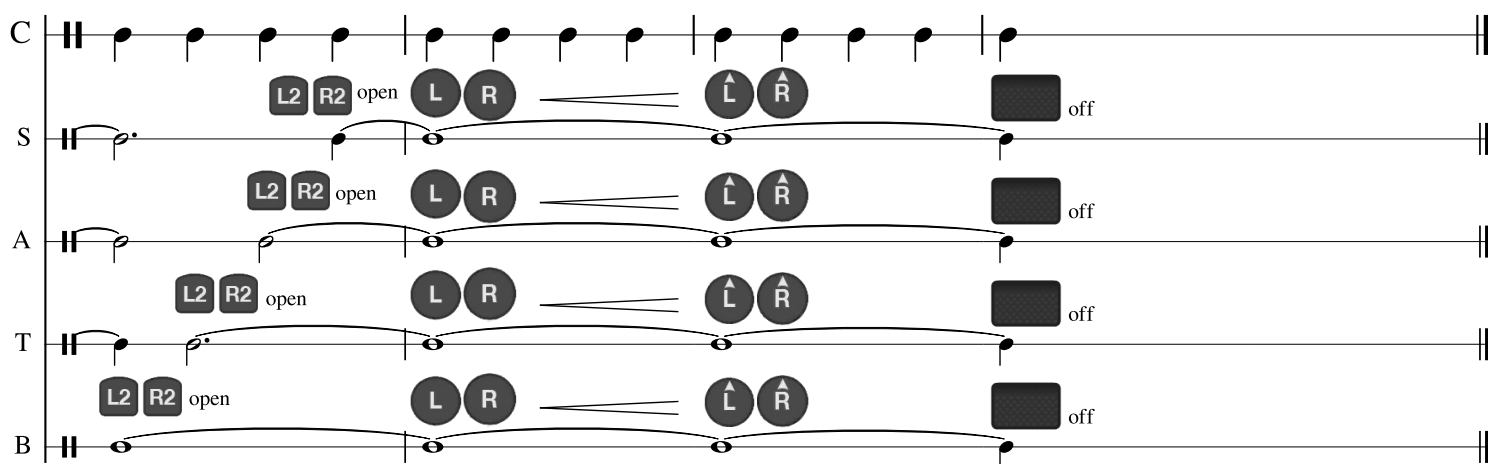
Instructions

Demo, codes, and instruction videos are available at joowonpark.net/psquartet1

Hardware

      4 X Playstation 4 Dualshock Game Controller

      4 X Computers running SuperCollider (http://supercollider.github.io/download)

      4 X Audio Cables to connect the computer's audio output to the speakers

      4 X Speakers (or to the house mixer if)

      Each part can be performed by multiple performers if more hardware are available

Syncing PS4 controller to the computer via Bluetooth

      1. Turn the computer's Bluetooth on. Open Bluetooth preference

      2. Hold **PS**+**Share Buttons** in the Dualshock Game Controller for few seconds until the light starts to blink

      3. The controller will appear as *Wireless Controller* in the Bluetooth Preference.

      4. Click Pair
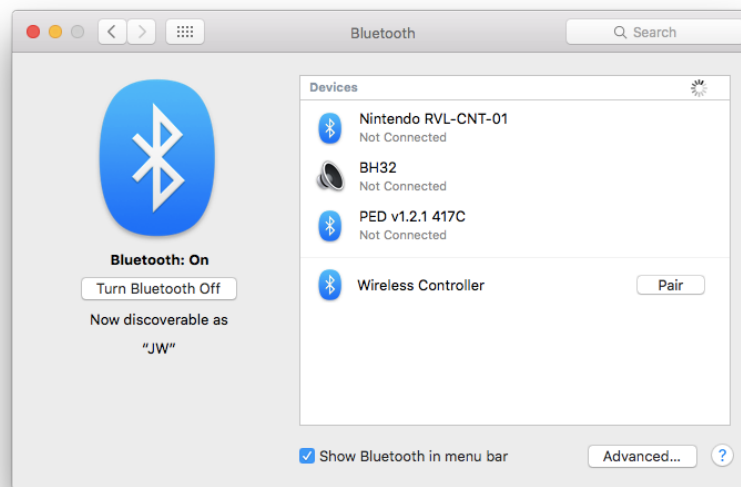
Some computers are hard to connect via Bluetooth. If this is the case, connect the controller with a USB cable.

Connecting PS4 controller to the computer via USB

      1. Turn Off the computer's bluetooth to avoid a possible confusion

      2. The controller should be automatically paired to the computer whenever it is on

Software Setup

      1. Download the SuperCollider codes from joowonpark.net/psquartet1

2. Turn on the controller <u>before</u> opening SuperCollider

3. Open SuperCollider

4A. Each performer opens one of the following files according to his/her part

> *PSQ1-Soprano-Bluetooth.scd*
> *PSQ1-Alto-Bluetooth.scd*
> *PSQ1-Tenor-Bluetooth.scd*
> *PSQ1-Bass-Bluetooth.scd*

4B. If the performer is connected via **USB**, use one of the following files

> *PSQ1-Soprano-USB.scd*
> *PSQ1-Alto-USB.scd*
> *PSQ1-Tenor-USB.scd*
> *PSQ1-Bass-USB.scd*

5. Go to **Menu->Language->Evaluate File**. The screen will become black and the patch is ready to start.

6. To quit or stop, press **command+. (period)** or an equivalent shortcut of *Stop* in *Menu->Language*

Performance Instructions

Instrument

> Each performer controls two synthesizers that sound like plucking strings. **L1, L2, and L** joystick controls the lower string, and **R1, R2, R j**oystick controls the upper string.

Computer Display

> The computer screen will display a synchronized animation for the audience. Face the screen of the computer to the audience.

Cues

> One of the performer or a **conductor** gives a cue for the quartet. The cueing is notated on top staff line of each system. The duration of each section is up to the conductor within the range given above the rehearsal letter.

Notation

> Note that each part is notated with playstation buttons and traditional notations

> • Press **trackpad** once to begin or stop piece.
> • **L2** and **R2** controls tempo of each string instrument. Pressing it all the way down will stop the string. Crescendo and decrescendo symbols are used to indicate a gradual opening and closing (pressing down) the L2/R2 buttons.
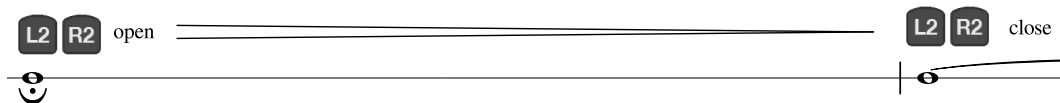
> • The combination of **directional buttons** and **□, X**, or **O buttons** will create an arpeggio.

Directional buttons + ☐ : change the Left string
Directional buttons + O : change the Right string
Directional buttons + X : change the both strings
X2, X4, X6, X12 : Create a melody with maximum of indicated notes. Ex: In the notation below, a performer can create a melody with 1 to 6 notes on either the Left or Right string. Left and the Right string can have different melodies. Performers can change and improvise the melody as many time as they want within the section

• **L1** and **R1 buttons** change brightness of the string. The performer can toggle the string materials between "steel" and "nylon."

• Pressing a △ **button** will toggle between a continuous 16th note rhythm and randomized rhythm for both strings. Do not use this button until **section G**.

• **L and R joysticks** control timbre of the strings. Horizontal movements will "bend" the strings. Vertical movements will "mute" or "open" the strings. When there's <u>one</u> arrow symbol inside the button (see below), gradually move to the indicated direction from the center position.

• When there is<u> more than one</u> arrow, improvise the movement of the joystick within the indicated directions.

• When there is a red circle such as the one below, the performer's L/R joystick movement should imitate the **circular hand gesture of the conductor**. The conductor is responsible for the speed and direction of the motion.

• **options button** is used only by Tenor part only. If the tenor is played by many performers, only <u>one</u> person should use the **options** button. Pressing it once will trigger a bass drum pattern. Pressing it again will start a <u>gradual</u> fadeout of the bass drum part. For rehearsals, wait until the fadeout is complete before pressing the key again.