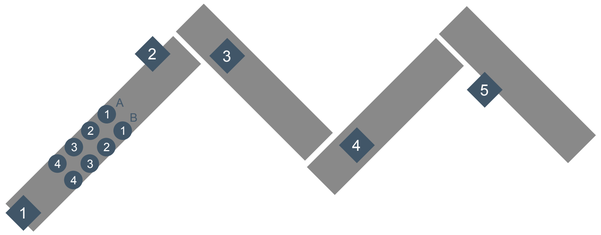
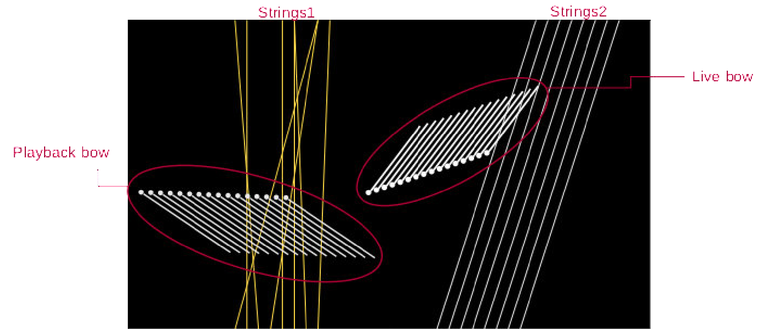
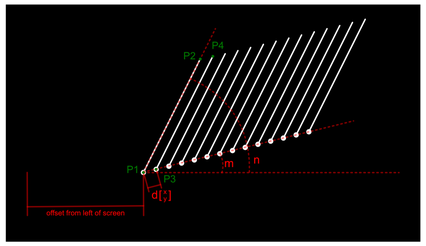
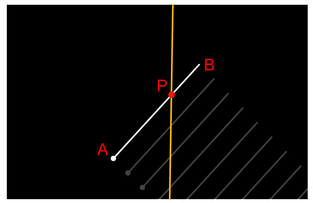
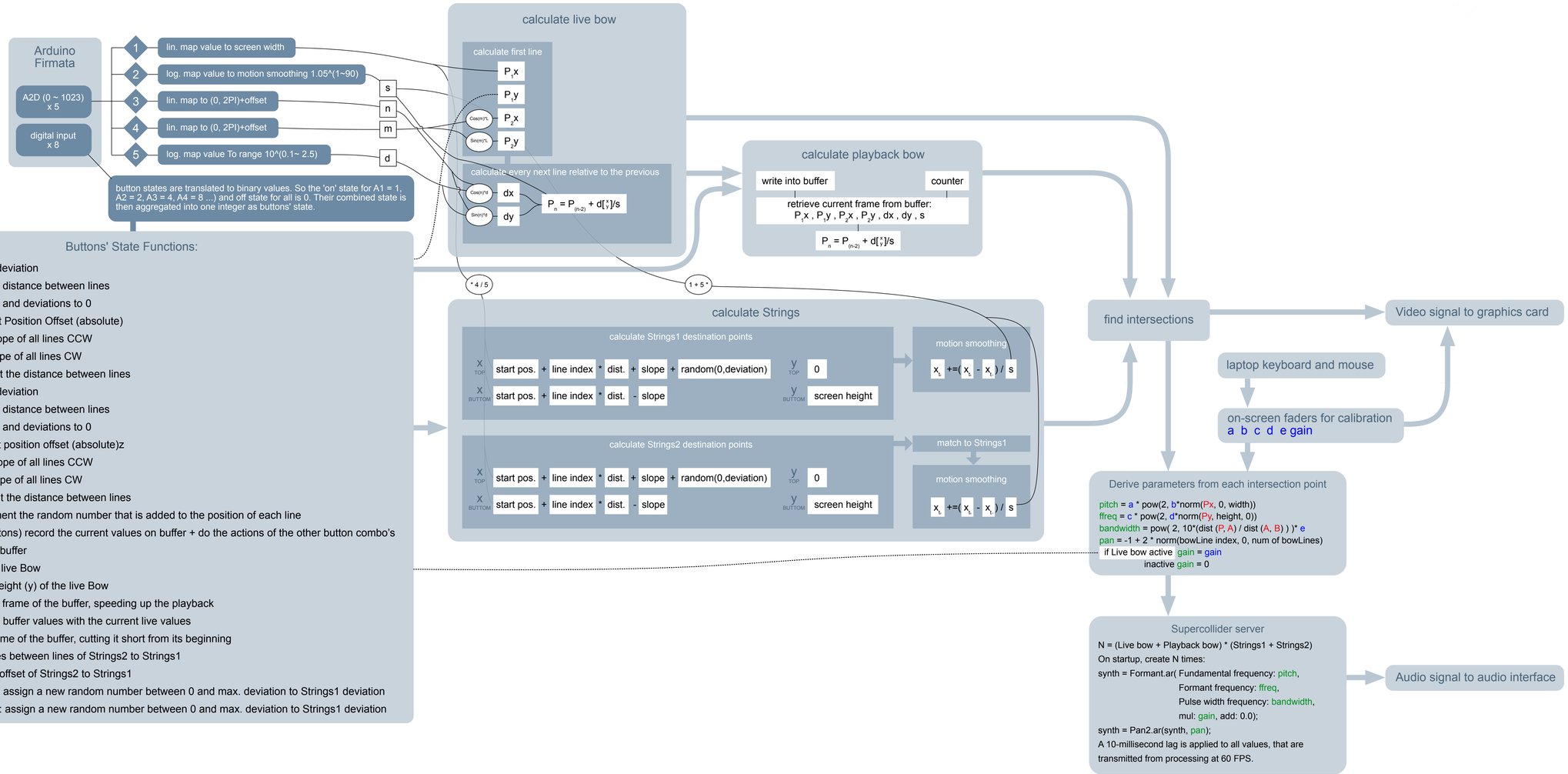
Physical controller (Arduino) → geometric model (Processing) → sound synthesis (SuperCollider)

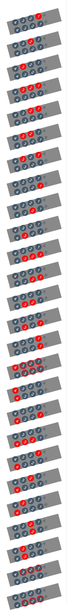












Buttons' State Functions:

(A1): Strings1 increment the deviation
(A2) : Strings1 decrement the distance between lines
(A3): Strings1 reset all slopes and deviations to 0
(A1 + A2 + A3) : strings1 Start Position Offset (absolute)
(A1 + A2) : Strings1 add to slope of all lines CCW
(A2 + A3): Strings1 add to slope of all lines CW
(A1 + A3) : Strings1 increment the distance between lines
(B1): Strings2 increment the deviation
(B2) : Strings2 decrement the distance between lines
(B3): Strings2 reset all slopes and deviations to 0
(B1 + B2 + B3) : strings2 start position offset (absolute)z
(B1 + B2) : Strings2 add to slope of all lines CCW
(B2 + B3): Strings2 add to slope of all lines CW
(B1 + B3) : Strings2 increment the distance between lines
(A1 + B1): Strings 1&2 increment the random number that is added to the position of each line
(A4 + any other combo of buttons) record the current values on buffer + do the actions of the other button combo's
(A4 + B4): flush the recorded buffer
(B4 + B1): enable/disable the live Bow
(B4 + B2 + B3): change the height (y) of the live Bow
(B4 + A1): remove every 10th frame of the buffer, speeding up the playback
(B4 + A2): replace the current buffer values with the current live values
(B4 + A3): remove the first frame of the buffer, cutting it short from its beginning
(A2 + B2): match the distances between lines of Strings2 to Strings1
(A3 + B3): match the starting offset of Strings2 to Strings1
Any button from A1, A2 or A3: assign a new random number between 0 and max. deviation to Strings1 deviation
Any button from B1, B2 or B3: assign a new random number between 0 and max. deviation to Strings1 deviation