**Lower (MIDI1) -– C0--->C4 with “any\_notes\_held”**

$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) == 0 && any\_notes\_held([9,21,33,45,57] ,1) == 0 && any\_notes\_held([10,22,34,46,58] ,1) == 0? "CMajor":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) == 1 ? "CMajor7":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) == 1 ? "C7":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 ? "Csus4/Fsus2":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1&& any\_notes\_held([4,16,28,40,52] ,1) ==0 && any\_notes\_held([3,15,27,39,51] ,1) ==0 && any\_notes\_held([5,17,29,41,53] ,1) ==0 && any\_notes\_held([10,22,34,46,58] ,1) == 0 ? "C5":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) == 0 && any\_notes\_held([8,20,32,44,56] ,1) ==0 && any\_notes\_held([9,21,33,45,57] ,1) == 0 ? "CMinor":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) == 1 ? "CMinor7/D#Major6":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) == 1 ? "CMinor6":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) == 0 && any\_notes\_held([10,22,34,46,58] ,1) ==0 && any\_notes\_held([11,23,35,47,59] ,1) == 0 ? "C#Major":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) == 1 ? "C#Major7":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) == 1 ? "C#7":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 ? "C#sus4/F#sus2":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==0 && any\_notes\_held([4,16,28,40,52] ,1) ==0 && any\_notes\_held([6,18,30,42,54] ,1) ==0 && any\_notes\_held([11,23,35,47,59] ,1) == 0 ? "C#5":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) == 0 && any\_notes\_held([9,21,33,45,57] ,1) ==0 && any\_notes\_held([10,22,34,46,58] ,1) == 0 ? "C#Minor":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) == 1 ? "C#Minor7/EMajor6":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) == 1 ? "C#Minor6":"")$(any\_notes\_held([2,14,26,38,50,62,74,86,98,110,122] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) == 0 && any\_notes\_held([11,23,35,47,59] ,1) ==0 && any\_notes\_held([0,12,24,36,48] ,1) == 0 ? "DMajor":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) == 1 ? "DMajor7":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) == 1 ? "D7":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 ?"Dsus4/Gsus2":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==0 && any\_notes\_held([5,17,29,41,53] ,1) ==0 && any\_notes\_held([7,19,31,43,55] ,1) ==0 && any\_notes\_held([0,12,24,36,48] ,1) == 0 ?"D5":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) == 0 && any\_notes\_held([10,22,34,46,58] ,1) ==0 && any\_notes\_held([11,23,35,47,59] ,1) == 0 ? "DMinor":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) == 1 ? "DMinor7/FMajor6":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) == 1 ? "DMinor6":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) == 0 && any\_notes\_held([0,12,24,36,48] ,1) ==0 && any\_notes\_held([1,13,25,37,49] ,1) == 0 ? "D#Major":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) == 1 ? "D#Major7":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) == 1 ? "D#7":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 ? "D#sus4/G#sus4":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==0 && any\_notes\_held([6,18,30,42,54] ,1) ==0 && any\_notes\_held([8,20,32,44,56] ,1) ==0 && any\_notes\_held([1,13,25,37,49] ,1) == 0 ? "D#5":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) == 0 && any\_notes\_held([11,23,35,47,59] ,1) ==0 && any\_notes\_held([0,12,24,36,48] ,1) == 0 ? "D#Minor":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) == 1 ? "D#Minor7/F#Major6":"")$(any\_notes\_held([3,15,27,39,51,63,75,87,99,111,123] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) == 1 ? "D#Minor6":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) == 0 && any\_notes\_held([1,13,25,37,49] ,1) ==0 && any\_notes\_held([2,14,26,38,50] ,1) == 0 ? "EMajor":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) == 1 ? "EMajor7":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) == 1 ? "E7":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 ? "Esus4/Asus2":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==0 && any\_notes\_held([7,19,31,43,55] ,1) ==0 && any\_notes\_held([9,21,33,45,57] ,1) ==0 && any\_notes\_held([2,14,26,38,50] ,1) == 0 ? "E5":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) == 0 && any\_notes\_held([0,12,24,36,48] ,1) == 0 && any\_notes\_held([1,13,25,37,49] ,1) == 0 ? "EMinor":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) == 1 ? "EMinor7/GMajor6":"")$(any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) == 1 ? "EMinor6":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) == 0 && any\_notes\_held([2,14,26,38,50] ,1) ==0 && any\_notes\_held([3,15,27,39,51] ,1) == 0 ? "FMajor":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) == 1 ? "FMajor7":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) == 1 ? "F7":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 ?"Fsus4/A#sus2":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==0 && any\_notes\_held([8,20,32,44,56] ,1) ==0 && any\_notes\_held([10,22,34,46,58] ,1) ==0 && any\_notes\_held([3,15,27,39,51] ,1) == 0 ?"F5":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) == 0 && any\_notes\_held([1,13,25,37,49] ,1) == 0 && any\_notes\_held([2,14,26,38,50] ,1) == 0 ? "FMinor":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) == 1 ? "FMinor7/G#Major6":"")$(any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) == 1 ? "FMinor6":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) == 0 && any\_notes\_held([3,15,27,39,51] ,1) ==0 && any\_notes\_held([4,16,28,40,52] ,1) == 0? "F#Major":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) == 1 ? "F#Major7":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) == 1 ? "F#7":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 ? "F#sus4/Bsus2":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==0 && any\_notes\_held([9,21,33,45,55] ,1) ==0 && any\_notes\_held([11,23,35,47,59] ,1) ==0 && any\_notes\_held([4,16,28,40,52] ,1) == 0 ? "F#5":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,55] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) == 0 && any\_notes\_held([2,14,26,38,50] ,1) ==0 && any\_notes\_held([3,15,27,39,51] ,1) == 0 ? "F#Minor":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,55] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) == 1 ? "F#Minor7/AMajor6":"")$(any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,55] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) == 1 ? "F#Minor 6":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) == 0 && any\_notes\_held([4,16,28,40,52] ,1) ==0 && any\_notes\_held([5,17,29,41,53] ,1) == 0 ? "GMajor":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) == 1 ? "GMajor7":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) == 1 ? "G7":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([12,24,36,48] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 ?"Gsus4/Csus2":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==0 && any\_notes\_held([10,22,34,46,58] ,1) ==0 && any\_notes\_held([12,24,36,48] ,1) ==0 && any\_notes\_held([5,17,29,41,53] ,1) == 0 ?"G5":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) == 0 && any\_notes\_held([3,15,27,39,51] ,1) ==0 && any\_notes\_held([4,16,28,40,52] ,1) == 0 ? "GMinor":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) == 1 ? "GMinor7/A#Major6":"")$(any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) == 1 ? "GMinor6":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) == 0 && any\_notes\_held([5,17,29,41,53] ,1) ==0 && any\_notes\_held([6,18,30,42,54] ,1) == 0 ? "G#Major":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) == 1 ? "G#Major7":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) == 1 ? "G#7":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 ? "G#sus4/C#sus2":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==0 && any\_notes\_held([11,23,35,47,59] ,1) ==0 && any\_notes\_held([1,13,25,37,49] ,1) ==0 && any\_notes\_held([6,18,30,42,54] ,1) == 0 ? "G#5":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) == 0 && any\_notes\_held([4,16,28,40,52] ,1) ==0 && any\_notes\_held([5,17,29,41,53] ,1) == 0 ? "G#Minor":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) == 1 ? "G#Minor7/BMajor6":"")$(any\_notes\_held([8,20,32,44,56] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) == 1 ? "G#Minor6":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) == 0 && any\_notes\_held([6,18,30,42,54] ,1) ==0 && any\_notes\_held([7,19,31,43,55] ,1) == 0 ? "AMajor":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) == 1 ? "AMajor7":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) == 1 ? "A7":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 ? "Asus4/Dsus2":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==0 && any\_notes\_held([0,12,24,36,48] ,1) ==0 && any\_notes\_held([2,14,26,38,50] ,1) ==0 && any\_notes\_held([7,19,31,43,55] ,1) == 0 ? "A5":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) == 0 && any\_notes\_held([5,17,29,41,53] ,1) ==0 && any\_notes\_held([6,18,30,42,54] ,1) == 0 ? "AMinor":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) == 1 ? "AMinor7 / CMajor6":"")$(any\_notes\_held([9,21,33,45,57] ,1) ==1 && any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) == 1 ? "AMinor6":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) == 0 && any\_notes\_held([7,19,31,43,55] ,1) ==0 && any\_notes\_held([8,20,32,44,56] ,1) == 0 ? "A#Major":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) == 1 ? "A#Major7":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) == 1 ? "A#7":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 ? "A#sus4/D#sus2":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==0 && any\_notes\_held([1,13,25,37,49] ,1) ==0 && any\_notes\_held([3,15,27,39,51] ,1) ==0 && any\_notes\_held([8,20,32,44,56] ,1) == 0 ? "A#5":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) == 0 && any\_notes\_held([6,18,30,42,54] ,1) ==0 && any\_notes\_held([7,19,31,43,55] ,1) == 0 ? "A#Minor":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) == 1 ? "A#Minor7 / C#Major6":"")$(any\_notes\_held([10,22,34,46,58] ,1) ==1 && any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) == 1 ? "A#Minor6":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) == 0 && any\_notes\_held([8,20,32,44,56] ,1) ==0 && any\_notes\_held([9,21,33,45,57] ,1) == 0 ? "BMajor":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) == 1 ? "BMajor7":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) == 1 ? "B7":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 ? "Bsus4/Esus2":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==0 && any\_notes\_held([2,14,26,38,50] ,1) ==0 && any\_notes\_held([4,16,28,40,52] ,1) ==0 && any\_notes\_held([9,21,33,45,57] ,1) == 0 ? "B5":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) == 0 && any\_notes\_held([7,19,31,43,55] ,1) ==0 && any\_notes\_held([8,20,32,44,56] ,1) == 0 ? "BMinor":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) == 1 ? "BMinor7 / DMajor6":"")$(any\_notes\_held([11,23,35,47,59] ,1) ==1 && any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) == 1 ? "BMinor6":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) ==1 ? "C, E, G# Aug":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) ==1 ? "C#, F, A Aug":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) ==1 ? "D, F#, A# Aug":"")$(any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([11,23,35,47,59] ,1) ==1 ? "D#, G, B Aug":"")$(any\_notes\_held([0,12,24,36,48] ,1) ==1 && any\_notes\_held([3,15,27,39,51] ,1) ==1 && any\_notes\_held([6,18,30,42,54] ,1) ==1 && any\_notes\_held([9,21,33,45,57] ,1) == 1 ? "C, D#, F#, A Dim":"")$(any\_notes\_held([1,13,25,37,49] ,1) ==1 && any\_notes\_held([4,16,28,40,52] ,1) ==1 && any\_notes\_held([7,19,31,43,55] ,1) ==1 && any\_notes\_held([10,22,34,46,58] ,1) == 1 ? "C#, E, G, A# Dim":"")$(any\_notes\_held([2,14,26,38,50] ,1) ==1 && any\_notes\_held([5,17,29,41,53] ,1) ==1 && any\_notes\_held([8,20,32,44,56] ,1) == 1 && any\_notes\_held([11,23,35,47,59] ,1) == 1 ? "D, F, G#, B Dim":"")

**Upper (MIDI 1 only) -– Individual notes with “any\_notes\_held”**

$(any\_notes\_held([60,72,84,96,108,120] ,1) ==1? "C":"")$(any\_notes\_held([61,73,85,97,109,121] ,1) ==1? "C#":"")$(any\_notes\_held([62,74,86,98,110,122] ,1) ==1? "D":"")$(any\_notes\_held([63,75,87,99,111,123] ,1) ==1? "D#":"")$(any\_notes\_held([64,76,88,100,112,124] ,1) ==1? "E":"")$(any\_notes\_held([65,77,89,101,113,125] ,1) ==1? "F":"")$(any\_notes\_held([66,78,90,102,114,126] ,1) ==1? "F#":"")$(any\_notes\_held([67,79,91,103,115,127] ,1) ==1? "G":"")$(any\_notes\_held([68,80,92,104,116,128] ,1) ==1? "G#":"")$(any\_notes\_held([69,81,93,105,117,129] ,1) ==1? "A":"")$(any\_notes\_held([70,82,94,106,118,130] ,1) ==1? "A#":"")$(any\_notes\_held([71,83,95,107,119,131] ,1) ==1? "B":"")

**Lower (MIDI 2 only) -– with “any\_notes\_held”**

$(any\_notes\_held([0,12,24,36,48] ,2) ==1? "C":"")$(any\_notes\_held([1,13,25,37,49] ,2) ==1? "C#":"")$(any\_notes\_held([2,14,26,38,50] ,2) ==1? "D":"")$(any\_notes\_held([3,15,27,39,51] ,2) ==1? "D#":"")$(any\_notes\_held([4,16,28,40,52] ,2) ==1? "E":"")$(any\_notes\_held([5,17,29,41,53] ,2) ==1? "F":"")$(any\_notes\_held([6,18,30,42,54] ,2) ==1? "F#":"")$(any\_notes\_held([7,19,31,43,55] ,2) ==1? "G":"")$(any\_notes\_held([8,20,32,44,56] ,2) ==1? "G#":"")$(any\_notes\_held([9,21,33,45,57] ,2) ==1? "A":"")$(any\_notes\_held([10,22,34,46,58] ,2) ==1? "A#":"")$(any\_notes\_held([11,23,35,47,59] ,2) ==1? "B":"")