

Friction Systems

for sextet

David M. Gordon

Friction Systems

for eighth blackbird

Duration: ca. 13'

Instrumentation

Flute

Doubling:

Prepared Piano (shared with pianist)

2 Whirling Tubes (a.k.a. Singing Tubes, Toy Hoses, Whirly Tubes, Whistling Tubes) (sounding at written pitch)

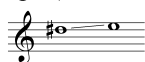


Can be slightly out-of-tune with other instruments and with each other

Bb Clarinet / Bb Bass Clarinet

Doubling:

Chromatic Pitch Pipe (sounding at written pitch)



Can be slightly out-of-tune with other instruments and with itself

2 Whirling Tubes (a.k.a. Singing Tubes, Toy Hoses, Whirly Tubes, Whistling Tubes) (sounding at written pitch)

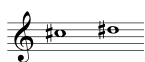


Can be slightly out-of-tune with other instruments and with each other

Violin

Doubling:

2 Whirling Tubes (a.k.a. Singing Tubes, Toy Hoses, Whirly Tubes, Whistling Tubes) (sounding at written pitch)



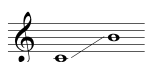
Can be slightly out-of-tune with other instruments and with each other

Violoncello

Percussion (1 player)

Instruments Needed:

Crotales (sounding 2 octaves higher than written)



Orchestra Bells (sounding 2 octaves higher than written)

Toy Piano (sounding at written pitch)



Preferably a bit out-of-tune with other instruments and with itself

2 Bowl/Cup Gongs (sounding at written pitch)



Can be slightly out-of-tune with other instruments and with each other

1 Resonant Glazed Clay Flower Pot (sounding at written pitch)



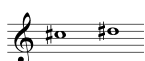
Can be slightly out-of-tune with other instruments

3 Resonant Glazed Earthenware/Stoneware Rice Bowls (sounding at written pitch)



Can be slightly out-of-tune with other instruments and with each other

2 Whirling Tubes (a.k.a. Singing Tubes, Toy Hoses, Whirly Tubes, Whistling Tubes) (sounding at written pitch)



Can be slightly out-of-tune with other instruments and with each other

3 Brake Drums

Thunder Tube (a.k.a. Spring Drum)

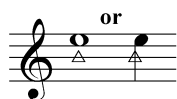
Prepared Piano (shared with flautist)

Abbreviations

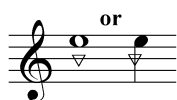
B Cl — Bb Bass Clarinet
B G — Bowl Gongs
Bk D — Brake Drums
Bls — Orchestra Bells
Cl — Bb Clarinet
Cro — Crotales
Fl — Flute
HP — Hard Plastic Mallets
HR — Hard Rubber Mallets
HY — Hard Yarn Mallets
MR — Medium Rubber Mallets
P / B — Flower Pot and Rice Bowls
Pc — Percussion
Pno — Prepared Piano
P P — Pitch Pipe
SP — Soft Plastic (Xylophone) Mallets
TB — Triangle Beater
T Pn — Toy Piano
Th T — Thunder Tube
Vc — Violoncello
Vln — Violin
W T — Whirling Tube(s)

Special Notations

The clarinet part is written at sounding pitch



Quarter-tone higher than indicated pitch



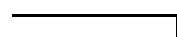
Quarter-tone lower than indicated pitch

U.C.

Una Corda pedal



Continue observing indicated marking
(e.g. 8va, *Ped*, etc.) until further notice
































Stop observing indicated marking
(e.g. 8va, *Ped*, etc.)

Special Performance Note

Throughout the work, all percussion instruments must be allowed to ring.

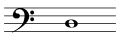
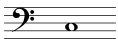
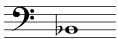
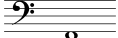

Table of Piano Preparations

<u>Pitch</u>	<u>Recommended Screw Size *</u>	<u>Distance from Damper *</u>	<u>Additional Pitch Produced</u>	<u>Other</u>
	#6-32 x 1/2"	ca. 5/8" from wood		
	#8-32 x 1/2"	ca. 2 1/4"		
	#8-32 x 1/2"	ca. 2 7/8"		
	#8-32 x 1/2"	ca. 3 5/8"		
	#8-32 x 1/2"	ca. 3 7/8"		
	#8-32 x 1/2"	ca. 4 7/8"		
	#10-24 x 1/2"	(ca. 3 1/2")		
	#10-24 x 1/2"	(ca. 3 3/4")		
	#10-24 x 1/2"	(ca. 4 1/4")		
	#10-24 x 1/2"	ca. 4 1/4"		
	#10-24 x 1/2"	ca. 7"		
	#10-24 x 1/2"	(ca. 6")		
	#10-24 x 1/2"	(ca. 6 3/4")		
	#10-24 x 1/2"	(ca. 7 1/2")		
	#10-24 x 1/2"	(ca. 8")		
	1/4" x 1/2"	(ca. 8 3/4")		
	1/4" x 1/2"	(ca. 9 1/2")		
	1/4" x 1/2"	(ca. 11 3/4")		
	#8-32 x 1/2"	(ca. 12 1/2")		Screw should be loose and head should touch string, producing a loud buzz
	1/4" x 1/2"	(ca. 13")		
	1/4" x 1/2"	(ca. 11 1/2")		

(cont. on following page)

* See comments on following page

Table of Piano Preparations—cont.

<u>Pitch</u>	<u>Recommended Screw Size</u>	<u>Distance from Damper</u>	<u>Additional Pitch Produced</u>	<u>Other</u>
	1/4" x 1/2"	(ca. 10")		
	1/4" x 1/2"	(ca. 7")		
	#8-32 x 1/2"	(ca. 3 3/4")		Screw should be loose and head should touch string, producing a loud buzz
	#10-24 x 1/2"	(ca. 12")		Screw should be loose and head should touch string, producing a loud buzz
	#10-24 x 1/2"	(ca. 11 1/2")		Screw should be loose and head should touch string, producing a loud buzz

Measurement units in parentheses indicate that the measurement does not need to be precise, and that the screw should be placed roughly 1/2 the distance between the damper and the wood. Specific additional pitches are not specified for these strings, although additional pitches will automatically be produced.

All strings indicated above must be prepared by placing metal machine screws between strings 2 and 3 (the center and right strings), or, in the case of lower pitches with only two strings, between 1 and 2.

Unless indicated otherwise, screws should be as tight as possible between the strings so as not to buzz, and the heads of the screws should not touch the strings.

Special care must be taken to assure that the *Una Corda* pedal mechanism is functioning properly. When the *Una Corda* pedal is pressed down, only strings 2 and 3 should be struck by the hammer, resulting in both a change in timbre and the absence of the normal pitches produced by the strings (i.e. only the additional pitches should sound). NOTE: Most *Una Corda* mechanisms are out of adjustment, causing the hammers to strike all three strings when the pedal is depressed. It is crucial that this be rectified in order for the correct timbres and pitches to be produced.