

Materials List for

Measurement of the Hand Transmitted Vibration of the Human Hand Arm System During Operation of a Hand Tractor

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Materials

Name	Company	Catalog Number	Comments
Accelerometers	PCB Piezotronics Inc.	352C33, 356A04	Used to measure vibration signals. Including 2 tri-axial accelerometers and 5 single-axis accelerometers.
CompactDAQ System	National Instruments	cRIO-9045, NI-9234 C	Used for acceleration acquisition. The system consists of a chassis and 3 data acquisition cards.
Digital caliper	Sanliang	160800635	Used to measure dimensions of the hand.
Digital goniometer	Sanliang	802973	Used to measure hand and arm posture.
Laptop computer	Lenovo	Ideapad 500s	To run the softwares.
Matlab	MathWorks Inc.	Version 2020a	Used for data processing.
NI SignalExpress	National Instruments	Trial version 2015	Use to acquire, analyze and present acceleration data.
Tachometer	Sanliang	TM 680	Used to measure engine speed.
Thin-film pressure sensing system	YourCee	n/a	Used to measure grip force. The system consists of 2 thin-film sensors, a STM32 singlechip and a LED display.