

## Appendix 2 THOR-05F Full Channel Counts and Load Cell Capacity

The channel list for THOR-05F is summarized in Table 13.

Table 13. THOR-05F available instrumentation

Description	Sensor Type	Channels	Channel Per Sensor	QTY	Subtotal Channel
Head CG accelerometers	accelerometer	Ax, Ay, Az	1	3	3
Head CG accelerometers - redundant	accelerometer	Ax, Ay, Az	1	3	3
Head angular rate sensor	ARS	$\omega x$ , $\omega y$ , $\omega z$	1	3	3
Facial load cell	load cell	Fx	1	5	5
Neck spring load cell	load cell	Fz	1	2	2
Upper neck load cell	load cell	Fx, Fy, Fz, Mx, My, Mz	6	1	6
Lower neck load cell	load cell	Fx, Fy, Fz, Mx, My, Mz	6	1	6
OC rotary pot	potentiometer	$\theta y$	1	1	1
Clavicle load cell, left	load cell	Fx, Fz (medial, Lateral)	4	1	4
Clavicle load cell, right	load cell	Fx, Fz (medial, Lateral)	4	1	4
T1 linear accelerometers	accelerometer	Ax, Ay, Az	1	3	3
Mid sternum Accelerometers	accelerometer	Ax	1	1	1
Thoracic IR-TRACC upper left	IR-TRACC	Dx	1	1	1
Rotary pot - IR-TRACC UL	potentiometer	$\theta y$	1	1	1
Rotary pot - IR-TRACC UL	potentiometer	$\theta z$	1	1	1
Thoracic IR-TRACC upper right	IR-TRACC	Dx	1	1	1
Rotary pot - IR-TRACC UR	potentiometer	$\theta y$	1	1	1
Rotary pot - IR-TRACC UR	potentiometer	$\theta z$	1	1	1
Thoracic IR-TRACC lower left	IR-TRACC	Dx	1	1	1
Rotary pot - IR-TRACC LL	potentiometer	$\theta y$	1	1	1
Rotary pot - IR-TRACC LL	potentiometer	$\theta z$	1	1	1
Thoracic IR-TRACC lower right	IR-TRACC	Dx	1	1	1
Rotary pot - IR-TRACC LR	potentiometer	$\theta y$	1	1	1
Rotary pot - IR-TRACC LR	potentiometer	$\theta z$	1	1	1
T8 accelerometers	accelerometer	Ax, Ay, Az	1	3	3
Thoracic spine load cell (T12)	load cell	Fx, Fy, Fz, Mx, My, Mz	6	1	6
Thorax angular rate sensor (T12)	ARS	$\omega x$ , $\omega y$ , $\omega z$	1	3	3
T12 accelerometers	accelerometer	Ax, Ay, Az	1	3	3
Abdomen pressure sensor	APTS	P	1	2	2

Pelvis CG accelerometers	accelerometer	Ax, Ay, Az	1	3	3
Pelvis CG ARS	ARS	$\omega_x, \omega_y, \omega_z$	1	3	3
Acetabular load cell, left	load cell	Fx, Fy, Fz	3	1	3
Acetabular load cell, right	load cell	Fx, Fy, Fz	3	1	3
ASIS load cell, left	load cell	Fx, My	2	1	2
ASIS load cell, right	load cell	Fx, My	2	1	2
Femur load cell, L&R	load cell	Fx, Fy, Fz, Mx, My, Mz	6	2	12
Knee potentiometer, left	string pot	Dx	1	1	1
Knee potentiometer, right	string pot	Dx	1	1	1
Upper tibia load cell, L&R	load cell	Fx, Fy, Fz, Mx, My	5	2	10
Lower tibia load cell, L&R	load cell	Fx, Fy, Fz, Mx, My	5	2	10
Tibia accelerometers, left	accelerometer	Ax, Ay	1	2	2
Tibia accelerometers, right	accelerometer	Ax, Ay	1	2	2
Achilles load cell, L&R	load cell	Fz	1	2	2
Ankle rotation, left	pot	$\theta_x, \theta_y, \theta_z$	1	3	3
Ankle rotation, right	pot	$\theta_x, \theta_y, \theta_z$	1	3	3
Foot accelerometers, left	accelerometer	Ax, Ay, Az	1	3	3
Foot ARS, left	ARS	$\omega_x, \omega_y, \omega_z$	1	3	3
Foot accelerometers, right	accelerometer	Ax, Ay, Az	1	3	3
Foot ARS, right	ARS	$\omega_x, \omega_y, \omega_z$	1	3	3
Upper arm load cell, L&R	load cell	Fx, Fy, Fz, Mx, My, Mz	6	2	12
Lower arm load cell, left	load cell	Fx, Fy, Fz, Mx, My, Mz	6	1	6
Lower arm load cell, right	load cell	Fx, Fy, Fz, Mx, My, Mz	6	1	6
Total					168