TABLE 133

Motivations for companies producing robotics or goods or services with robotics, by industry: 2016–18

(Number and percent)

Industry	NAICS code	Companies (number)	To upgrade goods or services		To expand the range of goods or services		To enter new markets or adapt existing products to new markets		To increase or maintain market share		To adopt standards and accreditation		Some other reason	
All industries	11, 21–23, 31–33, 42–81	15,043	45.5		41.9		32.8		35.0		12.4		23.4	
Manufacturing industries	31–33	2,968	58.7		50.5		44.7		48.9		16.1		13.0	
Food	311	50	44.0	r	8.0		12.0	r	30.0	r	10.0	r	38.0	r
Beverage and tobacco products	312	9	44.4	r	66.7	r	0.0		66.7	r	D		D	
Textile, apparel, and leather products	313–16	17 r	D		D		D		D		0.0		88.2	
Wood products	321	72 r	77.8	r	D		D		6.9		D		22.2	r
Paper	322	11	27.3		27.3		27.3		54.5		D		27.3	
Printing and related support activities	323	56	78.6		71.4		60.7		73.2		D		0.0	
Petroleum and coal products	324	0	0.0		0.0		0.0		0.0		0.0		0.0	
Chemicals	325	49	22.4	r	14.3	r	14.3	r	42.9	r	0.0		D	
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	0	0.0		0.0		0.0		0.0		0.0		0.0	
Pharmaceuticals and medicines	3254	D	D		0.0		0.0		0.0		0.0		0.0	
Soap, cleaning compound, and toilet preparation manufacturing	3256	0	0.0		0.0		0.0		0.0		0.0		0.0	
Other chemicals	other 325	44	15.9	r	15.9	r	15.9	r	47.7	r	0.0		D	
Plastics and rubber products	326	217	89.9		42.9	r	35.5	r	67.3		5.5	r	5.5	
Nonmetallic mineral products	327	13	61.5	r	D		D		69.2		D		D	
Primary metals	331	56 r	14.3		8.9		7.1		8.9		D		0.0	
Fabricated metal products	332	539	55.7		65.5		62.9		63.1		27.3		7.8	r
Machinery	333	1,047	56.6		48.6		49.9		55.4		15.3		13.4	
Computer and electronic products	334	316	62.0		46.5		35.8		32.0	r	5.4	r	17.1	
Communications equipment	3342	8 r	D		75.0		75.0		75.0		D		D	
Semiconductor and other electronic components	3344	77	55.8		59.7		31.2	r	45.5	r	11.7	r	19.5	r
Navigational, measuring, electromedical, and control instruments	3345	214	66.4		43.0		36.0		25.2	r	D		13.6	r
Other computer and electronic products	other 334	16	31.3		18.8		25.0	r	25.0	r	0.0		37.5	r
Electrical equipment, appliances, and components	335	91	69.2		42.9		33.0		22.0		7.7	r	15.4	
Transportation equipment	336	149	36.9		32.2		30.2		53.0		22.1	r	4.7	
Automobiles, bodies, trailers, and parts	3361–63	121	34.7		20.7	r	24.0		53.7	r	26.4	r	D	
Aerospace products and parts	3364	25	44.0	r	80.0		64.0		52.0	r	D		D	
Other transportation	other 336	D	D		D		D		D		0.0		0.0	
Furniture and related products	337	86 r	73.3		70.9	r	D		10.5	r	D		7.0	r
Miscellaneous	339	186	62.9		69.4		72.0		32.8		20.4		14.0	r
Medical equipment and supplies	3391	157	65.0		73.9		73.2		26.8	r	19.7	r	12.7	r
Other miscellaneous manufacturing	3399	30	53.3		43.3	r	60.0		60.0		26.7	r	D	
Nonmanufacturing industries	11, 21–23, 42–81	12,076	42.2		39.7		29.8		31.6		11.4		26.0	
Agriculture, forestry, fishing, and hunting	11	0	0.0		0.0		0.0		0.0		0.0		0.0	
Mining, extraction, and support activities	21	D	D		D		D		D		D		D	
Utilities	22	D	D		D		D		D		D		0.0	
Construction	23	744	47.7		51.2		38.0		23.5	r	D		D	
Wholesale trade	42	2,288	36.4		38.1		34.6		42.4		10.1		21.2	

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Retail trade	44–45	1,725		46.6		24.5		23.1		23.2		9.4		23.7	
Transportation and warehousing	48–49	69	r	27.5	r	17.4	r	D		18.8	r	18.8	r	87.0	
Information	51	332		69.3		66.9		42.5	r	45.2	r	17.8	r	9.0	r
Publishing	511	63		74.6		58.7	r	57.1	r	71.4		D		D	
Newspaper, periodical, book, and directory publishers	5111	D		D		D		D		D		D		D	
Software publishers	5112	59		74.6		55.9	r	54.2	r	69.5		D		D	
Telecommunications	517	14	r	D		D		0.0		0.0		0.0		D	
Data processing, hosting, and related services	518	54		81.5		90.7		79.6		75.9		D		D	
Other information	other 51	201	r	64.7		65.2		30.8	r	32.8	r	D		D	
Finance and insurance	52	178		29.8	r	23.6	r	23.0	r	48.9	r	D		21.9	r
Real estate and rental and leasing	53	183	r	D		D		D		D		D		69.4	r
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0		0.0		0.0		0.0		0.0		0.0		0.0	
Other real estate and rental and leasing	other 53	183	r	D		D		D		D		D		69.4	r
Professional, scientific, and technical services	54	2,729		44.8		51.6		37.6		36.8		13.9		27.6	
Legal services	5411	D		0.0		0.0		0.0		0.0		0.0		D	
Accounting, tax preparation, bookkeeping, and payroll services	5412	5		D		100.0		100.0		D		D		0.0	
Architectural, engineering, and related services	5413	1,314		42.3		49.2		30.1		33.6		6.9		31.4	
Specialized design services	5414	5		D		D		0.0		D		0.0		D	
Computer systems design and related services	5415	783		54.0		63.7		46.6		51.2		22.1		18.6	
Management, scientific, and technical consulting services	5416	321		36.1	r	49.8		48.9		25.5		23.1	r	6.5	r
Scientific research and development services	5417	159		50.3		41.5		47.8		30.2		10.7		30.2	
Advertising, public relations, and related services	5418	12		66.7		66.7		D		41.7	r	0.0		D	
Other professional, scientific, and technical services	5419	79	r	D		D		D		D		D		D	
Management of companies and enterprises	55	0		0.0		0.0		0.0		0.0		0.0		0.0	
Administrative and support and waste management and remediation services	56	772		53.0		33.5		11.0	r	33.8		D		28.8	r
Educational services	61	170	r	0.0		100.0		D		D		0.0		0.0	
Health care and social assistance	62	1,188		47.0		35.1		29.1		16.8	r	4.0	r	24.7	
Health care services	621–23	1,146		48.7		36.4		30.2		13.8	r	4.2	r	25.6	
Social assistance	624	D		0.0		0.0		0.0		D		0.0		0.0	
Arts, entertainment, and recreation	71	179	r	D		D		D		D		D		D	
Accommodation and food services	72	754		22.0	r	29.7		30.0		D		23.1	r	49.1	
Other services	81	757		45.2		29.2		19.6		32.6		D		30.3	

D = withheld to avoid disclosing data for individual companies; data are included in higher-level totals. r = relative standard error > 50%.

NAICS = 2017 North American Industry Classification System.

Note(s):

Detail may not add to total because of rounding. Detail may exceed total because companies could select more than one response. Industry classification is based on dominant establishment payroll. Statistics are representative of companies located in the United States.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, 2019 Annual Business Survey: Data Year 2018.