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Global Scan Summary

Location	Year Open	Length	# Stations	Ridership (Daily Average)	Ridership (Annual)	Speed	Travel Time	Design/Construction Cost	Number and Type of Vehicles	Infrastructure	Technology/Guidence System
Australia, Broadbeach	1989 (Closed 2017)									Straddle-beam	Steel box beam
Australia, Queensland, Sea World	1986	1.2 miles	2			17 mph		\$3M (Australian)	3, 9-car trains	Straddle-beam	Von Roll Mk II
Australia, Sydney	1988 (Closed 2013)	2.24 miles	8		70 million (lifetime)	21 mph (average)	12 minutes (entire loop)	\$55 million USD (construction) \$10-15 million USD (demolish)	Von Roll Type III, 6, 7-car trains	Straddle-beam	500 V AV power, generator provided to clear trains in emergencies. Built to operate autonomously, breakdowns soon after opening led to decision to retain drivers for each train
Belgium, Lichtaart	1975	1.15 miles	3			4.7 mph	15 minutes	Approx. \$550,000 dollars (1978)		Straddle-beam	Schwarzkopf
Brazil, Salvador	2021 (proposed estimate)	12.4 miles	22	Capacity of 150,000 passengers a day				\$650 million (approximately)		Straddle-beam	BYD Skyrail
Brazil, Sao Paulo, Line 15 (Expresso Tiradentes)	Phase 1: 2016 Phase 2: 2018	4.7 miles (out of 17 miles planned)	6 (out of 18 planned)	500,000 (estimated once fully completed) 40,000 passengers per hour per direction		50 mph (average)	12 min (50 minutes end to end once fully completed)	\$1.6 billion (estimated for entire project, not clear what is included in this amount)	54 seven-car trains (total once completed), Bombardier Innova 300	Straddle-beam	CITYFLO 650 automatic train control
Brazil, Sao Paulo, Line 17 (gold)	2022 (estimate)	11 miles	(8- to be expanded to 10)	85,000/day (expected)						Straddle-beam	ALWEG
Brazil, Sao Paulo, Line 2 (green) Extension	(construction to start on 2020)	5.16 miles		377,000 riders per day (expected)				\$1.4 billion (estimated for entire project, not clear what is included in this amount)	22 trains		
Brazil, Sao Paulo, Line 18 (bronze)	2018	9.6 miles	13							Straddle-beam	ALWEG
Canada, Montreal, La Ronde	1967	1 mile	2			6.2 mph (max)				Straddle-beam	Von Roll
Canada, Montreal	In planning	7.33 miles	7					\$1.1 billion (estimated)			
China, Beijing	Planned		21					\$3.27 billion		Straddle-beam	
China, Bengbu	In planning										
China, BYD Garden Line, Shenzhen	1998		4						5 P28/24 class trains (500mm wide and 700mm high box beam guideway)	Straddle-beam	
China, Dapeng	Under construction	37.3 miles									
China, Fenghua	In planning										
China, Guang'an	2019	6.1 miles	7							Straddle-beam	BYD Skyrail

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China, Happy Line Monorail, Shenzhen, China	1998	1.5 miles	7						"fleet of five P28/24 class, three-car trains, each with a capacity of 24 passengers". Monorail beam has dimensions of 500mm wide and 700mm tall with a support column every 15 meters	Straddle-beam	
China, Shanghai, Red Star Macalline	2008	0.37 miles								Straddle-beam	
China, Shanghai										Straddle-beam	Maglev (Magnetic Levitation)
China, Shantou	2020 (expected)	12.2 mi (55 km line under construction, 250 km planned)	18			50 mph				Straddle-beam	BYD SkyRail
China, Shenzhen, Happy Line	1998	2.4 miles	7						5 (24 passengers/train)	Straddle-beam	Intamin, P28/24, three-car trains
China, Shenzhen, Window of the World	1993	1 mile	3							Straddle-beam	
China, Shenzhen, BYD Garden Line		3.1 miles	7			50 mph (maximum)				Straddle-beam	BYD SkyRail
China, Xi'an	2015	5.97 miles	11						Intamin, P8/48, 3 vehicles (48 passengers)	Straddle-beam	Steel box beam
China, Yinchuan, Yungui monorail	2017	3.52 miles/5.67 km (expected to build city network to 300 km over next few years)	8			50 mph (maximum)		\$760 million		Straddle-beam	BYD SkyRail
China, Pingshan Demonstration Line, Shenzhen,	In planning	3.36 miles									
China, Chongqing	Line 2: 2005 Line 3: 2011	Line 2: 19.4 miles Line 3: 41 miles	Line 2: 25 Line 3: 45	Line 2: 234,200 (2014) Line 3: 682,800 (2014)		50 mph (maximum)		Line 3: USD \$2.1 billion	76 total cars arranged into four-car trains with a double axle bogie track	Straddle-beam	Hitachi, DC: 1,500 V electrical system, VVVF traction inverter control unit, and ATP two-man operated operating system.
China, Giulini	Under construction	17.4 miles	6			50 mph					
China, Huashan	In planning										
China, Wuhu, Anhui	2020 (expected)	28.71 miles	35 (expected)						Bombardier Innovia	Straddle-beam	
China, Jilin Line 1, Jilin, China	In planning	105 miles				49.71 mph				Straddle-beam	
China, Jining	Testing	21.75 miles				49.71 mph					BYD Skyrail
China, Zhongshan	In planning									Straddle-beam	BYD SkyRail

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Egypt, Cairo, East Cairo to New Administrative Capital	Under construction	33.6 miles		45,000 passenger per hour per direction (estimated)			60 minutes (estimated)	\$4.5bn including O&M for 30 yrs for both lines in Cairo (so including 6th October to Giza)	70 four-car Innovia Monorail 300 trains for both line in Cairo	Straddle-beam	Cityflo 650 signaling and automatic train control
Egypt, Cairo, 6th October to Giza	Under construction	26.1 miles		45,000 passenger per hour per direction (estimated)			42 minutes (estimated)	\$4.5bn including O&M for 30 yrs for both lines in Cairo (so including East Cairo to New Administrative Capital)	70 four-car Innovia Monorail 300 trains for both line in Cairo	Straddle-beam	Cityflo 650 signaling and automatic train control
Finland, Helsinki, Linnanmaki Maisemajuna	1979	0.31 miles	1							Straddle-beam	Gebr. Ihle, Bruchsal
Germany, Dortmund, H-BAHN	1984	2 miles	5		Up to 8,000 a day and "capable of moving 2,000 passengers in one direction per hour"	31 mph	Different connections, not a single line		Aluminum driverless cars	Automatically controlled suspended monorail	Aluminum driverless cars suspended from a hollow beam with dual axle with sliding doors at glass walled stations, running gear fitted with hard rubber types (to make it quieter), slide mounted wheels (inside the beam), two independent traction systems and combined regenerative-rheostatic braking system
Germany, Düsseldorf	2002	1.6 miles	4			32 mph	14.5 minutes total			Automatically controlled suspended monorail and gondola lift	Fully automatic gondola lift
Germany, Europa Park (Theme Park in Rust Germany)	1995						13 minutes		93 seats and maximum capacity of 1200 people per hour	Straddle-beam	Alweg (Von Roll Type II)
Germany, Wuppertal	1901	8.26 miles	20	65,500-80,000	25 million (2008)	17.1 mph (average)	30 minutes (entire length)	\$450 million reconstruction since (2004)	Articulated suspension railway trains GTW 72 (24 cars) Articulated suspension railway trains G15 (31 cars) introduced 2015	Suspended	Cars suspended from a single rail built underneath a supporting steel frame. The cars hang on rubber wheels and are powered by 750 V electric motors. The train's safety mechanism depends on the driver; driver must constantly push a pedal to control the train, otherwise train automatically stops (eliminated need of a second driver/assistant).
India, Mumbai	Phase 1: 2014 Phase 2: 2019	Phase 1: 5.5 miles Phase 2: 6.6 miles	17	Phase 1: 17,000 (2019), Phase 2: < 5,000 (2019)		19 mph (avg), 50 mph (top speed)	3 minute headway	\$501.9m	Phase 1: 15 trains Phase 2: 4 trains (expected 17 trains by 2021)	Straddle-beam	Alweg technology

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Iran, Qom	Under construction	4.35 miles	8	12,000 / pphpd (expected)				\$120 million	20 driver-operated 4-car units (56 m long), to be increased to 36 in second stage	Straddle-beam	
Italy, Savio, Ravenna Mirabilandia	1999	1.24 miles	2							Straddle-beam	
Italy, Bologna / Marconi Express	2019 (expected)	3.11 miles	3		Estimated demand of around 1 million. Capacity of 560 passengers per hour per direction , corresponding to 5,183,000 p/year.	25 mph average	7 minutes 20 seconds (end-to-end)		3 vehicles, type P30/50 trains.	Straddle-beam	Automatic (no driver)
Italy, Venice	2010	.54 miles	3			18 mph	1.5 minutes		2 four car trains (50 passengers per vehicle and 200 passengers per train)	Straddle-beam	Elevated steel truss piers/columns
Japan, Chiba, Japan	1988, 1995	9.45 miles	19 (total between the two)	12,500	17.5 million	12.43-18.64 mph			2-car train Safeju type suspended monorail	Safeju type suspended monorail (two lines)	SAFEGE
Japan, Kitakyushu	1985	5.47 miles	13	30,177 (2013)		16.78-40.39 mph		\$550 million (1985 dollar)	10 four car	Straddle-beam	ALWEG
Japan, Shonan	1970	4.1 miles	8	15,000	10 million	45 mph (top speed)	14 minutes (entire line)		Mitsubishi 5000 series 3-car sets	Suspension	SAFEGE
Japan, Tokyo, Tama Toshi Monorail	Phase 1: 1998 Phase 2: 2000	10 miles	19	44,000	50.5 million	40 mph (average)	Local: 24 min. Rapid: 21 min. Airport Express: 13, 16, and 18 minutes (depending on the terminal)	USD \$2.422 billion	Hitachi 1000 series (1500V DC)	Straddle-beam	Alweg technology, driver, electric
Japan, Tokyo, Haneda Monorail	1964	11 miles	10	78,726	45 million	50 mph		USD \$265.6 million (1964 dollar)		Straddle-beam	ALWEG
Japan, Osaka	1990	17.4 miles	18	27,391	44.5 million	45 mph (maximum)	35 minutes (entire route)		Hitachi four-car trains	Straddle-beam	Alweg-Hitachi technology, 1500 V electric
Japan, Higashiyama	Under construction	1.24 miles	2							Straddle-beam	
Japan, Okinawa, Naha / Yui Rail	2003	8 miles	15	49,716 (2017)	16 million	40 mph		\$352 million (2003 dollar) Other source cites a cost of USD \$1.1 billion, more in line with expectations	14,700 mm long, 2,980 mm wide, and 5,100 high.	Straddle-beam	Two-axis bogie electric control passenger car, two-car fixed organization (Mc1,Mc2)
Japan, Kanagawa	1970	4.1 miles	8			45 mph	14 minutes (comes every 7-8 minutes)		Seven three-car aluminum-bodied 5000 series train seats from Mitsubishi Heavy Industries	Suspended	SAFEGE

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Japan, Tokyo, Disneyland Urayasu	2001	3.11 miles	4	28,416	20.9 million	31.1 mph	13 min		five, 6-car trains (up to four trains operating on loop simultaneously)	Straddle-beam	ALWEG
Japan, Tokyo, Taito Ueno Zoo	1957	0.19 miles	3				90 seconds			Suspended	Single track
Malaysia, Kuala Lumpur	2003	5.3 miles	11	63,778 (2017)	23.279 million (2017)	37 mph	5 min headway	Construction: \$209 million USD Upgrades: \$125 million USD (12 new trains)		Straddle-beam	ALWEG
Malaysia, Malacca	2010 (2010-2013, and 2017-present)	1 mile					30 minutes	\$4 Million		Straddle-beam	ALWEG
Mexico, Mexico City		1.9 miles				28 mph	4 minutes 40 seconds		4 carriages with 25 person capacity each and capable of up to 6,800 passengers daily	Straddle-beam	Automated electric train using 6-km cable system and with a tubular steel base carriage
Nigeria, Calabar	2016		3			25 mph average			12-car train powered by Intamin P8 electric (38.5 meters long, 1.95 meters wide, and 2.2 meters high)	Straddle-beam	
Nigeria, The Rivers Monorail, Port Harcourt, Nigeria										Straddle-beam	
Panama, Panama City	2022	16.6 miles	14				45 minutes	\$2.6bn	28 six-car trains	Straddle-beam	
Philippines, Iloilo	2019 (expected)	12.4 miles								Straddle-beam	BYD SkyRail
Russia, Moscow	2004	2.9 miles	6			37 mph		\$240 million		Straddle-beam	Steel box beam
Saudi Arabia, Riyadh	Under construction								Bombardier Innova 300	Straddle-beam	
Singapore, Sentosa, Sentosa Express	2007	1.3 miles	4				8 minutes			Straddle-beam	Hitachi
South Korea, Seoul, Lotte World	1986									Straddle-beam	Steel box beam
South Korea, Daegu	2015	14.9 miles	30	74,031 (2017)		20-45 mph (range of standard operating speeds)	50 minutes (full length)	\$792 million	28 hitachi monorail sets with 84 cars. 15m long, 2.9 m wide, and 5.24 m high.	Straddle-beam	Digital ATP/ATO/ATS driverless system and two closed-circuit surveillance cameras.
Spain, Zaragoza	2008	0.31 miles	2				2.5 min		4-car trains, 36 passengers (2 wheelchairs)	Straddle-beam	Van Roll, manual or semi-automatic
Taiwan, E-DA Theme Park Dashu District (Kaohsiung City)										Straddle-beam	

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Thailand, Bangkok	2022	Yellow: 18.64 miles Pink: 21.13 miles	53 (30 pink and 23 yellow)			50 mph		USD \$1.7 billion (yellow line) and USD \$1.75 billion (pink line)		Straddle-beam	
Thailand, Chiang Mai	2008 (closed 2014)									Straddle-beam	
The Philippines, Balanga city	In planning	4.35 miles (planned)								Straddle-beam	BYD Skyrail
The Philippines, Iloilo city	In planning									Straddle-beam	
Turkey, Ankara	2012	.31 miles	3							Straddle-beam	
Turkmenistan, Ashgabat	2016	3 miles	8			28.6-43.5 mph			Up to 75 passengers	Straddle-beam	Steel box beam
UAE (United Arab Emirates), Dubai	2009	3.36 miles	4			22-43.5 mph				Straddle-beam	ALWEG
UK, Chester Zoo Monorail, Chester Zoo, England	1991	0.93								Straddle-beam	Steel box beam
UK, Alton, Alton Towers	1987	2 miles								Straddle-beam	ALWEG, Vol Roll Type II
UK, Beaulieu	1974	1 mile	2							Straddle-beam	Unknown
United States, Orlando, Disney World	1971	14.7 miles	6 (3 lines)	Over 150,000	50 million	40 mph			Mark VI trains with cars, up to 360 people per train	Straddle-beam	Alweg
United States, Anaheim, Disneyland	1959	2.5 miles	2			30 mph	13 minutes round trip		Red, Blue, and Orange Mark VII trains (5 cars with up to 145 passengers per train)	Straddle-beam	600-volt DC power source
United States, Hawaii, Pearlridge Mall	1967	0.31 miles	3						Four cars with up to 64 people at a time.	Straddle-beam	Rohr Industries
United States, Jacksonville	1989	2.5 miles	8	5,000 per day (2015)	840,000 annually (2018)	35 mph	Train arrives every 4 minutes during peak hours and every 8 minutes during off-peak hours	\$182 million	Six two-car trains	Straddle-beam	UM III monorail technology, fixed 11-foot guideway with parapet walls, and automatic train control (ATC). The train model is not in production anymore and parts are also difficult to get.
United States, Seattle	1962	1 mi	2	unknown (more varied than other transit modes in Seattle e.g. light rail, buses)	2.15 million (2014)	45 mph	service every 10 minutes (5 minutes during special events and activities with two trains running) and each trip takes two minutes.	\$3.5 million (construction),	Two trains (circa 1962)	Straddle-beam	68 y-shaped columns supporting pairs of 70 foot long and 30 foot high concrete beams and 64 tires on each train (48 guide tires and 16 load tires).

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United States, Tampa, Florida	2018	1.4 miles	3				Less than five minutes and trains come about every two minutes		12 cars and up to 3,990 people per hour	Straddle-beam	TGI/Bombardia
United States, Las Vegas	2004 (1995)	3.9 miles	7 (8th planned)	13,500/average daily	2.9 million (2016)	50 mph (maximum)	15 minutes (end to end) and 4-8-minute headways	\$350 million-construction	Bombardier M-VI monorail fleet with nine four-car trains (36 cars).	Straddle-beam	Bombardier trains
United States, Newark	1996	Phase 1: 1.86 miles Phase 2: 1.12 miles	8 station (including the connection to NJ Transit)	Around 30,000 passengers a day between terminals A, B and C, the airport's parking and rental car lots, and a station linking the airport to NJ Transit trains along the Northeast Corridor line.	11 million	Maximum speed of 27 mph during peak periods	Travel times from Newark Liberty International Airport Station to passenger terminals vary.  Terminal C - 7 min. Terminal B - 9 min. Terminal A - 11 min.	Phase 1: USD \$354 millions Phase 2: USD \$415 millions	18 six-car trains	Straddle-beam	ALWEG
Vietnam, Da Nang, Asia Park	2016	1.12 miles	3					\$177.8 million	Up to 2,000 passengers an hour	Straddle-beam	Intamin P6 trains