Dynamic measurement:

1. Long straight track was built with markers every 2 meters.
2. The F1 car was put on start (0m marker).
3. The camera documenting position of the car was started. Localization started as well.
4. With remote controller we drove to the end of track with maximal speed.
5. The video and the localization positions were compared at the markers - means every 2 meters.

Static measurement:

1. Long straight track was built with markers every 2 meters.
2. The F1 car was put on start (0m marker).
3. With remote controller we drove to the chosen marker on track with maximal speed.
4. Lastly, we measured (by using measuring tape) the distance between start and current position of car and compare it with localization position.

We measured accuracy for dynamic measurement and accuracy and settling time for static measurement of localization.

The results of dynamic measurement for speeds 2,4,6,8 m/s and map with features are there:

speed	2 m/s		
	true position on video [m]	localization position [m]	difference between positions [m]
	2	1,9819	0,0181
	4	4,0581	-0,0581
	6	6,0584	-0,0584
	8	8,0379	-0,0379
	10	9,981	0,019

speed	4 m/s		
	true position on video [m]	localization position [m]	difference between positions [m]
	2	2,03	-0,03
	4	4,07	-0,07
	6	5,994	0,006
	8	7,961	0,039
	10	9,997	0,003

speed	6ms		
	true position on video [m]	localization position [m]	difference between positions [m]
	2	2,063	-0,063
	4	3,803	0,197
	6	6,018	-0,018
	8	8,315	-0,315
	10	10,027	-0,027

The results of static measurements for speeds 2,4,6,8 m/s and map with features are there:

speed	8 m/s				
measured position by measuring tape [m]	localization position (immediately) [m]	localization position (after settling) [m]	settling time [s]	delta S1 [m]	delta S2 [m]
5,57	5,55	5,59	0,52609992	0,02	0,02
11,51	11,55	11,56	0,325200081	0,04	0,05
7,14	7,17	7,16	1,904099941	0,03	0,02
13,75	13,77	13,77	0,150399923	0,02	0,02
19,85	18,97	19,89	0,274800062	0,88	0,04

speed	6 m/s				
measured position by measuring tape [m]	localization position (immediately) [m]	localization position (after settling) [m]	settling time [s]	delta S1 [m]	delta S2 [m]
5,87	5,91	5,91	0,275599957	0,04	0,04
11,08	11,09	11,08	0,913399935	0,01	0
4,07	4,06	4,05	0,326299906	0,01	0,02
10,51	10,46	10,49	0,300199986	0,05	0,02
16,43	16,55	16,48	0,550199986	0,12	0,05
18,03	18	18,01	0,099999905	0,03	0,02

speed	4 m/s				
measured position by measuring tape [m]	localization position (immediately) [m]	localization position (after settling) [m]	settling time [s]	delta S1 [m]	delta S2 [m]
3,47	3,4	3,45	0,275599957	0,07	0,02
7,1	7,14	7,14	0,600500107	0,04	0,04
9,65	9,62	9,63	0,384100199	0,03	0,02
14,37	14,36	14,4	0,175100088	0,01	0,03
16,08	16,11	16,09	0,688300133	0,03	0,01

speed	2 m/s				
measured position by measuring tape [m]	localization position (immediately) [m]	localization position (after settling) [m]	settling time [s]	delta S1 [m]	delta S2 [m]
4,67	4,69	4,69	0,175400019	0,02	0,02
6,79	6,84	6,83	0,250599861	0,05	0,04
9,25	9,27	9,28	1,002200127	0,02	0,03
12,48	12,48	12,5	0,100399971	0	0,02
17,28	17,3	17,3	1,153499842	0,02	0,02

The result of static measurement for speed 6 m/s and map without features is there:

speed	6 m/s				
measured position by measuring tape [m]	localization position (immediately) [m]	localization position (after settling) [m]	settling time [s]	delta S1 [m]	delta S2 [m]
7,31	7,28	7,29	0,2772	0,03	0,02
18,14	18,06	18,04	0,2	0,08	0,1
11,24	11,16	11,15	1,4302	0,08	0,09
13,76	13,69	13,67	0,4758	0,07	0,09
5,55	5,63	5,62	0,3251	0,08	0,07