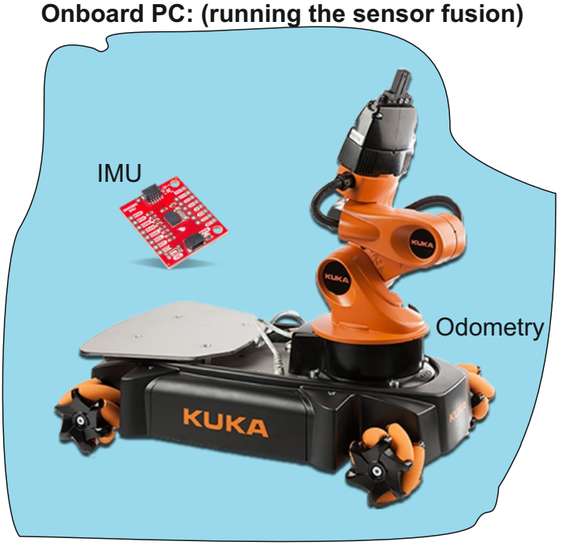
PC on the local network with IP 192.168.0.5

Rapberry PI on the local network with IP 192.168.0.15

Onboard PC: (running the sensor fusion)



network_config_file.json

```
{
	"Remote" : {

		"optical_flow_PC" : {
			"IP" : "192.168.0.5",
			"ClockServerPort" : "1234",

			"Peripheries" : {
				"optical_flow": {
					"Port": "5555"
				}
			}
		}.

		"GPS_RP" : {
			"IP" : "192.168.0.15",
			"ClockServerPort" : "1234",

			"Peripheries" : {
				"GPS": {
					"Port": "5555",
					„hwm”: 10
				}
			}
		}

	},

	"LocalPeripheries" : {
		"IMU" : {
			"type": "tcp",
			"address": "5556",
			"hwm" : 15
		},

		"odometry" : {
			"type" : "tcp",
			"address" : "5560"
		}
	}

}
```

main.cpp - a periphery

```
#include "Periphery.h"
#include "ClockSynchronizer.h"
using namespace SF;

int main() {
	try {
		NetworkConfig n;
		n.Add("network_config_file.json");
		auto clockServer = InitClockSynchronizerServer(n.GetClockSyncData("optical_flow_PC"));
		Periphery p1(n.GetPeripheryData("optical_flow"));
		while (true) {
			// Get values (covariance matrix) from the sensor
			auto v = Eigen::VectorXd::Ones(4) * 5;
			auto S =Eigen::MatrixXd::Identity(4, 4) * 7;
			p1.SendValueAndVariance(8, v, S, OUTPUT);
		}
	return 0;
	}
	catch (std::exception e) {
		std::cout << e.what() << std::endl;
		exit(EXIT_FAILURE);
	}
}
```

(similarly)

main.cpp - a local periphery

```
#include "Periphery.h"
using namespace SF;

int main() {
	try {
		NetworkConfig n;
		n.Add("network_config_file.json");
		Periphery p1(n.GetPeripheryData("IMU"));
		while (true) {
			// Get values (covariance matrix) from the sensor
			auto v = Eigen::VectorXd::Ones(4) * 5;
			auto S =Eigen::MatrixXd::Identity(4, 4) * 7;
			p1.SendValueAndVariance(8, v, S, OUTPUT);
		}
	return 0;
	}
	catch (std::exception e) {
		std::cout << e.what() << std::endl;
		exit(EXIT_FAILURE);
	}
}
```

(similarly)

main.cpp - the logger

```
#include „Logger.h"
using namespace SF;

int main() {
	try {
		NetworkConfig n;
		n.Add("network_config_file.json");
		std::string filename = "log_output.log";
		Logger l(filename);
		l.AddPeripheries(n);
		l.Start(DTime(2000));

		//Until your job is done...
		std::this_thread::sleep_for(std::chrono::milliseconds(3000));
		return 0;
	}
	catch (std::exception e) {
		std::cout << e.what() << std::endl;
		exit(EXIT_FAILURE);
	}
}
```