

TTK4155 - Embedded AND Industrial Computer Systems

# Term Project Development Kit



## What is in the kit

All the major components that you will need in the quantity given by the table below, as well as an assortment of tools and cables. Exact parts and counts are listed at the bottom of this document.

## What is not in the kit

Small and uncountable components are not part of the kit but are instead found at the component store at the lab. Take what you need when you need it.

## When returning the kit

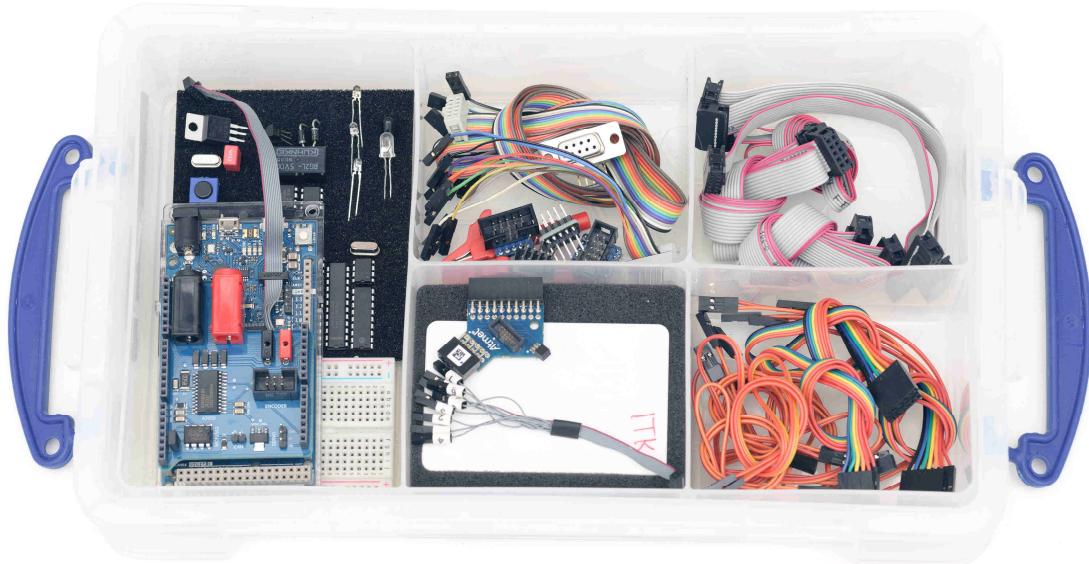
You should return the kit as close as possible to its original state. This means exact component counts, and in the assigned location in the kit (the three layers, or the correct position in the divider tray). You should remove all surplus or non-kit components from the kit, and either replace or make a note of any missing components, so they can be easily replaced for next year.

If possible, you should return the passive components (resistors and capacitors) you took from the component store at the lab, but only those you deem usable for a future group. You should discard any components that are too short or too crooked to be considered usable next year.

There are no expectations for the wires in the wire kit - return only what you consider useful for next year's groups.

**You will not get access to the exam before you have returned the kit in a good state.**

Kit position	Kind	Manufacturer part name	Description	Count
bottom	Cable	SPC20040 (or equiv.)	9p-9p DSUB cable 1.8m	1
bottom	Cable	USB micro-B, 1.8m	For Atmel ICE	1
bottom	Cable	USB micro-B	For Arduino Due	1
bottom	Cable	USB mini-B	For USB multifunction card	1
bottom	Cable	(custom)	Motor power 60cm	1
bottom	Tool	Wiha 42388	Screwdriver	1
bottom	Tool	Proskit 8PK-102D	Plier	1
bottom	Tool	Proskit 8PK-30D	Cutter	1
bottom	Wire kit	K&H KS-350	Wire kit	1
west	Custom card	Arduino Due	Arduino Due w/ custom shield	1
west	Breadboard	TW-E40-510	Mini breadboard	1
west	(kit pos.: pad)	(custom)	ESD component pad	1
south	Programmer	Atmel ICE		1
south	Programmer	ICE 50-mil 10-pin mini squid cable		1
south	Programmer	ICE Adapter board		1
southeast	Flat cable	SparkFun PRT-10367	2-pin 6"	4
southeast	Flat cable	SparkFun PRT-10372	2-pin 12"	5
southeast	Flat cable	SparkFun PRT-10373	3-pin 12"	1
southeast	Flat cable	SparkFun PRT-10375	5-pin 12"	1
southeast	Flat cable	SparkFun PRT-10376	6-pin 12"	2
northeast	Flat cable	Amphenol FC10600-0	10p IDC (5x2) 60cm	2
northeast	Flat cable	Amphenol FC10150-0	10p IDC (5x2) 15cm	3
northeast	Flat cable	Amphenol FC06600-0	6p IDC (3x2) 60cm	1
north	Flat cable	(custom)	10p male IDC to 10x 1p squid	1
north	Flat cable	(custom)	10p female IDC to 5x 2p squid	1
north	Connector	(custom)	DSUB9 to breadboard	1
north	Connector	(custom)	5x2 to breadboard unshrouded	2
north	Connector	(custom)	5x2 to breadboard shrouded	2
north	Connector	Multicomp 27.187.1	Crocodile clip	2
top	Breadboard	Multicomp MCBB3060	Main breadboard	1
top	Custom card	Nimron P1000	USB multifunction card	1



pad	IC	ATMega162	Microcontroller	1
pad	IC	MAX233	Serial transceiver	1
pad	IC	ALS573CN	Latch	1
pad	IC	HC00N	NAND gate	1
pad	IC	IDT7164S20TPG	SRAM 64k	1
pad	IC	MAX156BCNG+	ADC	1
pad	IC	MCP2515	CAN controller	1
pad	IC	MCP2551	CAN transceiver	1
pad	IC	MCP602	OpAmp	2
pad	Control	MC7805CT	Voltage regulator	1
pad	Control	Euroquartz 4.9152MHz	Crystal	1
pad	Control	Euroquartz 16MHz	Crystal	1
pad	Control	RG2L-5VDC	Relay	1
pad	Control	3CTL9	Switch	1
pad	Semiconductor	MPSA56	Transistor	1
pad	Semiconductor	TSHA5200	IR emitter (clear)	1
pad	Semiconductor	SFH203-FA	IR photodiode (black)	1
pad	Semiconductor	HLMP 1340	Red LED	3
pad	Semiconductor	1N4005	Diode	2
pad	Passive	MKS2C041001F00KSSD	Wima Film Capacitor 1uF	1

