Part I

software

1 Noder

1.1 Node specifikationer

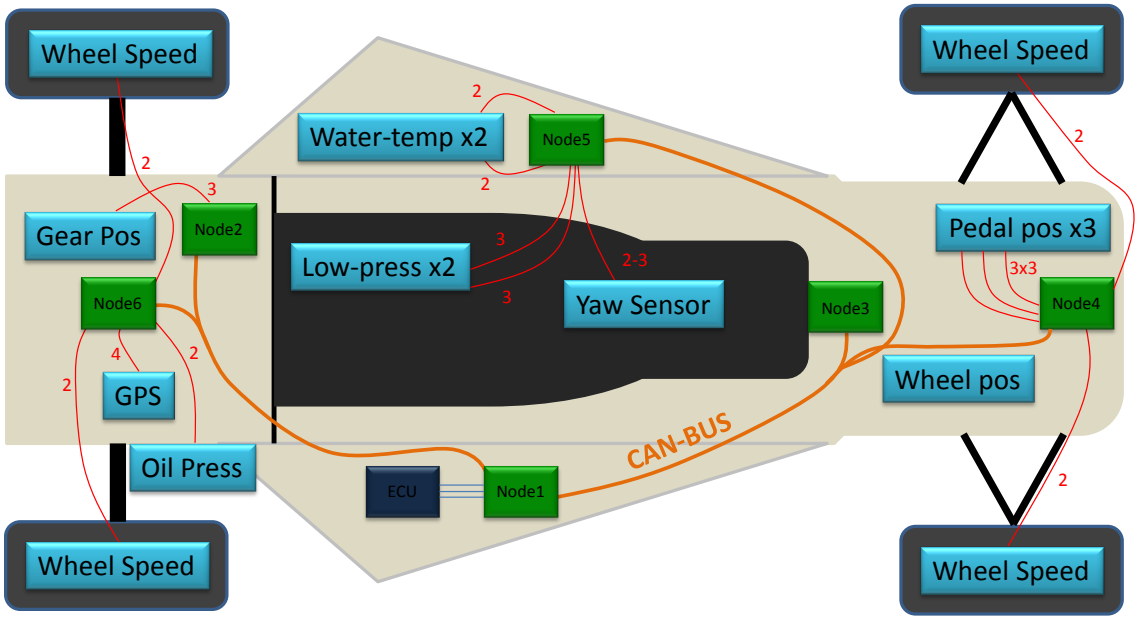

Figure 1.1: Diagram over noder på bil.

Node 4				
Sensor	**Antal**	**Data size [bit]**	**Total [bit]**	**Updateringsrate [Hz]**
Speeder pedal pos	1	8	8	20 ?
Break pedal pos	1	8	8	20 ?
Clutch pedal pos	1	8	8	20 ?
Steering wheel pos	1	8	8	20 ?
Wheel speed front	2	8	16	50 ?

Table 1.1: Node 4 sensor specifikation.

Node 5				
Sensor	**Antal**	**Data size [bit]**	**Total [bit]**	**Updateringsrate [Hz]**
Low-press	2	8	16	10 ?
Yaw	1	30	30	30 ?
Water-temp	2	8	16	1

Table 1.2: Node 5 sensor specifikation.

Node 6				
Sensor	**Antal**	**Data size [bit]**	**Total [bit]**	**Updateringsrate [Hz]**
Wheel speed back	2	8	16	50 ?
Olie press	1	8	8	10
GPS	1	40 ?	40 ?	< 5 ?

Table 1.3: Node 6 sensor specifikation.

2 Can protocol

2.1 CAN data pakke

Standart CAN datapakke		
Type	**Tid**	**Variabel data længde**
6 bit	6 bit	max 52 bit

Table 2.1: Layout for standart CAN data pakke.

Definition af værdi for CAN datapakke typer			
Navn	**Kort navn**	**Værdi hex**	**Beskrivelse**
Wheel speed back	WhlSpdB	0x01	Hjul hastighed for begge baghjul
Wheel speed front	WhlSpdF	0x02	Hjul hastighed for begge forhjul

Table 2.2: CAN datapakke typer.

Definition af wheel speed back CAN datafelt							
	Datafelt						**Total [bit]**
Size [bit]	8	8	8	8	8	8	48
Indhold	Left	Left	Left	Right	Right	Right	

Table 2.3: CAN wheel speed back datafelt.

Definition af wheel speed front CAN datafelt							
	Datafelt						**Total [bit]**
Size [bit]	8	8	8	8	8	8	48
Indhold	Left	Left	Left	Right	Right	Right	

Table 2.4: CAN wheel speed front datafelt.

3 Log

3.1 Sdkort software

Til at skrive til sdkortet på node1 bruges der kode, til et fat filsystem og low level interfacing, fundet på hjemmesiden http://elm-chan.org/fsw/ff/00index_e.html [cha].

Bibliography

FatFs. URL http://elm-chan.org/fsw/ff/00index_e.html.