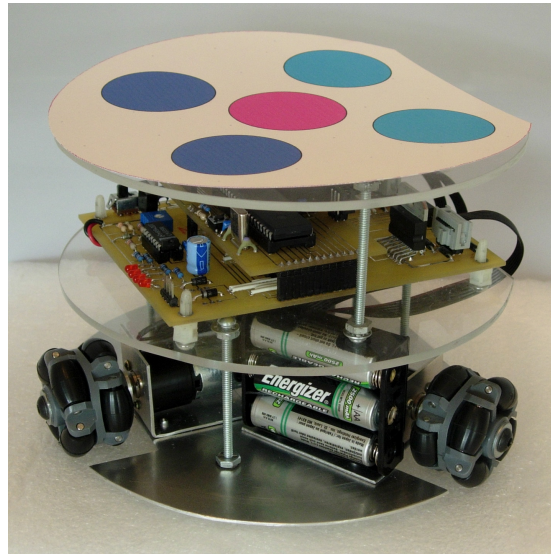


# F180 ROBOT PROJECT



F180 robot

## Project Description

This robot was designed to comply with the RoboCup F180 League rules for 2006. RoboCup is an international body that governs Robotic Soccer. The F180 League is a subclass of robots within the RoboCup organization. This robot is intended to be the prototype for a set of five robots that's intended purpose is to play soccer. The wider view of the system of which these robots are a part of includes: a field camera (two if the field is large), an image processing system, an A.I. computer system for coordinating the robot team's play and a radio transmitter system to communicate with the robot players.

## Key Features

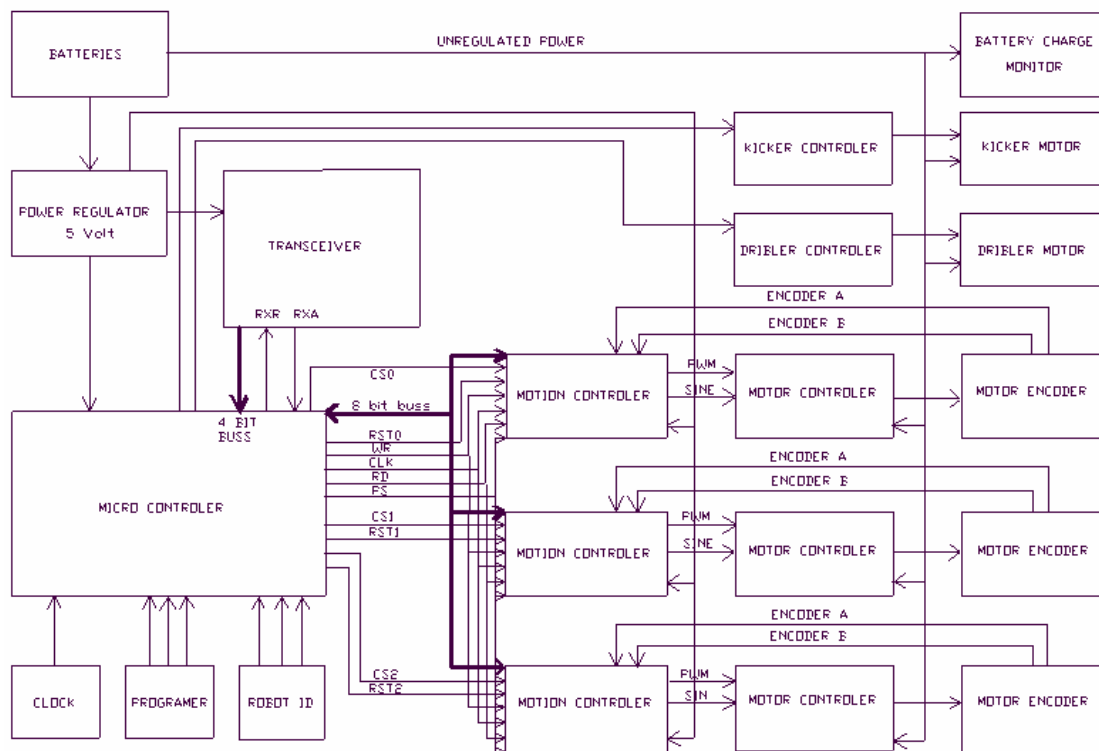
- 360° Mobility without having to turn robot
- Expansion header and board provisions for kicker and dribbler upgrade
- On board Programmer to program the PIC18F452
- Battery Condition indicators
- Robot ID header



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## Technical Specifications

- Radiometrix Digital Data Transceiver
- Onboard PIC18F452 microcontroller
- 7 Energizer AA 2500 mAh Nickel-Metal Hydrate Rechargeable Batteries
- National Semiconductors LM7805 5V Voltage Regulator
- National Semiconductors LM629 Motion Controllers
- ST Microelectronics L298N HBridge
- Maxon motor, spur gear head (20:1), 2 channel Magnetic Quadrature Encoder
- NARP 4 cm wheels



**System Block Diagram**

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